



بازگشت به
صفحه اول



در صورت غیرفعال بودن دکمه هادر
سیستم عامل اندروید، از اپلیکیشن
Microsoft 360 استفاده نمائید.

متوجه شدم

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Nirumand Polymer



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معرفی شرکت

شرکت دانش بنیان مهندسی نیرومند پلیمر، پروانه صنعتی خود را بیش از 50 سال پیش از وزارت صنعت وقت دریافت نموده است. این واحد تولیدی علاوه بر توسعه سبد محصولات و افزایش سهم بازار، موفقیت های قابل توجهی را در زمینه صادرات کسب کرده است. همچنین صدور پروانه تحقیق و توسعه توسط وزارت صمت به واسطه حضور فعال تیم متخصص پلیمری در قسمت های آزمایشگاه، کنترل کیفیت و پژوهش میسر شده است.

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< ۱۳۷۰-۱۳۵۰

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تولید ظروف ملامین و لوازم خانگی پلاستیکی

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جدید در شهرک صنعتی عباس آباد
نصب دو خط کامپاندینگ دو پیچ برای تولید آمیزه
های مهندسی
رسیدن به ظرفیت 3000 تن در سال

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۱۳۹۰-۱۴۰۰

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دریافت گواهینامه ۱۷۰۲۵
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بین المللی توسعه صادرات صنایع پلیمری
موفق به تمدید گواهینامه دانش بنیان

مسئولیت اجتماعی

شرکت مهندسی نیرومند پلیمر در راستای مسئولیت اجتماعی سازمانی خود، فعالیت‌های قابل توجهی در زمینه ساخت و تجهیز مدارس در مناطق محروم، اشتغال زایی در شهرک صنعتی عباس آباد، کمک به درمان بیماران مبتلا به سرطان و پاک سازی محیط زیست به جهت توسعه ایرانی آباد و پیشرفته انجام داده است.

ایران من





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محصولات



NiruMid



NiruPylene



NiruFlex



NiruBlend



NiruABS



NiruThylene



NiruAdd



NiruCalcit



NiruBio

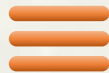


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NiruMid

محصولات نیرومید بر پایه پلی آمید با توجه به نیاز مشتری ، در گریدهای مختلف ۶ و ۶۶ توسط شرکت نیرومندپلیمر تولید میگردد .

آمیزه سازی پلی آمید با الیاف شیشه باعث بهبود چه نوع خواص مکانیکی در محصول میشود ؟

◆ ترکیب ایده آلی از استحکام کششی

◆ مدول خمشی

◆ ضربه پذیری

◆ افزایش مقاومت سایشی

◆ افزایش مقاومت حرارتی

آمیزه سازی پلی آمید با الیاف شیشه ، در چه صنایعی کاربرد دارد ؟

◆ قطعات الکتریکی

◆ خودروسازی

◆ سایر قطعات مهندسی با کارایی بالا

دیتاشیت



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دیتاشیت



**6A30GB-
747R**



6A30GN-768



6AN-114



6AN-162



**6AN-
Supertough**



**66A30GN-
759**



**66A35GB-
938R**



66AB-153



66AN-115



66AN-153



**66AN-
Supertough**

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بازگشت

Technical Data Sheet

6A30GB-747R Polyamide 6 Reinforced with Glass Fiber

Product Description

6A30GB-747R is recycled polyamide 6 reinforced with 30% glass fiber. It provides high mechanical properties, good impact resistance, toughness, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in automotive applications, electrical goods, home appliance industry, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	1.33	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR)	.....	gr/10 min	ASTM D1238
Shrinkage	≤ 0.2	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	≥ 110	MPa	ISO 527
Tensile Strength@Break	≥ 110	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	7000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

6A30GN-768 Polyamide 6 Reinforced with Glass Fiber

Product Description

6A30GN-768 is polyamide 6 reinforced with 30% glass fiber. It provides a combination of high mechanical properties and impact resistance, stiffness, surface hardness, dimensional stability, appropriate abrasion, good thermal and chemical resistance. This compound is designed to be used in automotive applications, electrical goods, home appliance industry, and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.32	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR)	.....	gr/10 min	ASTM D1238
Shrinkage	≤ 0.3	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	145	MPa	ISO 527
Tensile Strength@Break	145	MPa	ISO 527
Elongation @ Break	7	%	ISO 527
Flexural Modulus	7000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	20	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	14	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

6AN-114 Polyamide 6

Product Description

6AN-114 is polyamide 6 resin offering high mechanical properties, stiffness and thermal resistance. This product is used in housewares, automotive applications, home appliance industry, electrical goods and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.11	gr/cm ³	ISO 1183
Shrinkage	1.4-1.6	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	75	MPa	ISO 527
Tensile Strength @ Break	....	MPa	ISO 527
Elongation @ Break	≥ 25	%	ISO 527
Flexural Modulus	2200	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	2	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

6AN-162 Impact Modified Polyamide 6

Product Description

6AN-162 is polyamide 6 resin offering good balance of mechanical properties and toughness. This compound provides better impact resistance compared to typical polyamide 6 resin. This product is used in automotive applications, home appliance industry, electrical goods and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.1	gr/cm ³	ISO 1183
Shrinkage	1.35	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	60	MPa	ISO 527
Tensile Strength @ Break	.....	MPa	ISO 527
Elongation @ Break	≥ 20	%	ISO 527
Flexural Modulus	2200	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	18	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	12	kJ/m ²	ISO 180

Thermal Properties	Value	Unit	Test Method
Heat Deformation Temperature (1.80 Mpa)	70	°C	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

6AN-Supertough Polyamide 6

Product Description

6AN-Supertough is polyamide 6 resin offering good balance of mechanical properties and toughness. This compound provides very high impact resistance compared to typical polyamide 6 resin. This product is used in automotive applications, electrical goods, home appliance industry, and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.03	gr/cm ³	ISO 1183
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	≥ 40	MPa	ISO 527
Tensile Strength @ Break	...	%	ISO 527
Elongation @ Break	≥ 40	%	ISO 527
Flexural Modulus	1200	%	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	> 65	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	> 25	kJ/m ²	ISO 180

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66A30GN-759 Polyamide 66 Reinforced with Glass Fiber

Product Description

66A30GN-759 is polyamide 66 reinforced with 30% glass fiber. It provides a combination of superior mechanical properties and impact resistance, high stiffness, surface hardness, dimensional stability, appropriate abrasion, excellent thermal and chemical resistance. This compound is designed to be used in automotive applications, electrical goods, home appliance industry, and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Natural

Physical Properties	Value (dry condition)	Unit	Test Method
Density	1.35	gr/cm ³	ISO 1183
Filler Content	30 ± 2	%	ISO 3451/1
Shrinkage	≤ 0.3	%	Internal

Mechanical Properties	Value (dry condition)	Unit	Test Method
Tensile Strength@Break	150	MPa	ISO 527
Elongation @ Break	6	%	ISO 527
Flexural Modulus	7000 ≤	MPa	ASTM D790

Impact	Value (dry condition)	Unit	Test Method
Notched Izod Impact (23°C)	14 ≤	kJ/m ²	ISO 180

Hardness	Value (dry condition)	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

Flammability	Value (dry condition)	Unit	Test Method
Flammability (3.2 mm)	HB	.....	UL94

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66A35GB-938R Polyamide 66 Reinforced with Glass Fiber

Product Description

66A35GB-938R is recycled polyamide 66 reinforced with 35% glass fiber. It provides a combination of high mechanical properties, stiffness, surface hardness, dimensional stability, good impact and thermal resistance. This product is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	1.4	gr/cm ³	ISO 1183
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	≥ 130	MPa	ISO 527
Elongation@Break	6	%	ISO 527
Flexural Modulus	> 8500	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	7	Kj/m ²	ISO 180
Notched Izod Impact (-20°C)	....	Kj/m ²	ISO 180

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66AB-153 Impact Modified Polyamide 66

Product Description

66AB-153 is polyamide 66 resin offering good balance of mechanical properties and toughness. This compound provides better impact resistance compared to typical polyamide 66 resin. This product is used in automotive applications, home appliance industry, electrical goods and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black
Flammability	•HB

Physical Properties	Value	Unit	Test Method
Density	1.14	gr/cm ³	ISO 1183
Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	≥ 60	MPa	ISO 527
Elongation @ Break	≥ 20	%	ISO 527
Flexural Modulus	2300	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	15	kJ/m ²	ISO 180
Thermal Properties	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

◆ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66AN-115 Polyamide 66

Product Description

66AN-115 is polyamide 66 resin offering superior mechanical properties, stiffness and thermal resistance. This product is used in automotive applications, electrical goods, home appliance industry and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.11	gr/cm ³	ISO 1183
Shrinkage	1.7-1.8	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	80	MPa	ISO 527
Tensile Strength @ Break	....	MPa	ISO 527
Elongation @ Break	≥ 25	%	ISO 527
Flexural Modulus	2300	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66AN-153 Impact Modified Polyamide 66

Product Description

66AN-153 is polyamide 66 resin offering good balance of mechanical properties and toughness. This compound provides better impact resistance compared to typical polyamide 66 resin. This product is used in automotive applications, home appliance industry, electrical goods and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural
Flammability	•HB

Physical Properties	Value	Unit	Test Method
Density	1.14	gr/cm ³	ISO 1183
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	≥ 60	MPa	ISO 527
Tensile Strength @ Break	.....	MPa	ISO 527
Elongation @ Break	≥ 20	%	ISO 527
Flexural Modulus	2300	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	15	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	...	kJ/m ²	ISO 180

Thermal Properties	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

♦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

66AN-Supertough Polyamide 66

Product Description

66AN-Supertough is polyamide 66 resin offering good balance of mechanical properties and toughness. This compound provides very high impact resistance compared to typical polyamide 66 resin. This product is used in automotive applications, electrical goods, home appliance industry, and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.11	gr/cm ³	ISO 1183
Shrinkage	...	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	≥ 40	MPa	ISO 527
Tensile Strength @ Break	...	%	ISO 527
Elongation @ Break	≥ 45	%	ISO 527
Flexural Modulus	1500	%	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	70	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	20	kJ/m ²	ISO 180
Hardness	Value	Unit	Test Method
Vicat Softening Point(50N/ 120°C/hr)	≥ 155	°C	ASTM D1525

❖ Values shown are average & are not to be considered as product specifications.



NiruPylene

این گروه شامل محصولات بر پایه پلی پروپیلن می باشد که با توجه به نیاز مشتریان و متناسب با کاربرد نهایی، در گریدهای مختلف (کوپلیمر و هموپلیمر) و در رنگ های مختلف تولید می گردد. آمیزه های مهندسی پایه پلی پروپیلن تقویت شده با الیاف شیشه و انواع پرکننده های معدنی می باشد. این گروه از محصولات شامل سه دسته زیر می باشند:



PP+CC



PP+GF



PP+Talc

PP+Calcium Carbonate

کامپاندهای پلی پروپیلن تقویت شده با کربنات کلسیم:

آمیزه سازی پلی پروپیلن با پرکننده معدنی کربنات کلسیم باعث بهبود چه نوع خواص مکانیکی در محصول میشود؟

◆ افزایش مدول خمشی

◆ پایداری ابعادی

◆ افزایش مقاومت حرارتی

◆ کاهش جمع شدگی

◆ بهبود فرآیند

◆ کاهش مکش های سطح قطعه

◆ اقتصادی تر شدن

آمیزه سازی پلی پروپیلن با پرکننده معدنی کربنات کلسیم ، در چه صنایعی کاربرد دارد ؟

◆ خودروسازی ◆ لوازم ساختمانی و بهداشتی

◆ لوازم خانگی و اداری ◆ کشاورزی و باغبانی

◆ لوازم الکتریکی

دیتاشیت





Nirumand Polymer



دیتاشیت

**P40CN-
C30R-4311/1**

P40CN-C40

P40CN-H40

**P40CN-
H50R-4277**

**P40CUW-
2148**

**P40CUW-
H60-4510**

**P50CN-
H40R-2099**

P60CN-H60

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Technical Data Sheet

P40CN-C30R-4311/1 Copolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CN-C30R-4311/1 is recycled copolymer polypropylene filled with 40% mineral powder by better toughness, mechanical properties, dimensional stability, good thermal and chemical resistance. This compound is used in appliance industry, automotive applications especially wheel cover, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.22	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	5	gr/10 min	ASTM D1238
Shrinkage	...	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	17	MPa	ISO 527
Tensile Strength @ Break	15	MPa	ISO 527
Elongation @ Break	≥ 20	%	ISO 527

Flexural Modulus	1600	MPa	ASTM D790
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Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	7	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	65	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40CN-C40 Copolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CN-C40 is copolymer polypropylene filled with 40% calcium carbonate offering better mechanical properties, dimensional stability, suitable stiffness, impact resistance, good thermal and chemical resistance. This compound is used in home appliance industry, electrical goods, automotive applications, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.22	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	7	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	17	MPa	ISO 527
Tensile Strength@Break	16	MPa	ISO 527
Elongation@Break	15	%	ISO 527
Flexural Modulus	1500	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥7	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40CN-H40 Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CN-H40 is homopolymer polypropylene filled with 40% calcium carbonate offering better mechanical properties, dimensional stability, suitable stiffness, impact resistance, good heat and chemical resistance. This compound is used in home appliance industry, electrical goods, automotive applications, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.22	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	10	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	18	MPa	ISO 527
Tensile Strength@Break	17	MPa	ISO 527
Elongation@Break	20	%	ISO 527
Flexural Modulus	1900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	4	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40CN-H50R-4277

Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CN-H50R-4277 is recycled homopolymer polypropylene filled with 40% calcium carbonate. This compound is used in automotive applications, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.22	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	10	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	17	MPa	ISO 527
Tensile Strength@Break	15	MPa	ISO 527
Elongation@Break	12	%	ISO 527
Flexural Modulus	1600	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40CUW-2148 Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CUW-2148 is homopolymer polypropylene filled with 40% calcium carbonate offering good stiffness and toughness balance, good thermal and chemical resistance. This compound is used in home appliance industry, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Ultra White

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	8	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	≥ 19	MPa	ISO 527
Tensile Strength@Break	.....	MPa	ISO 527
Elongation@Break	≥ 25	%	ISO 527
Elastic Modulus	.....	MPa	ISO 527
Flexural Modulus	1800	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	4	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40CUW-H60-4510

Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P40CUW-H60-4510 is homopolymer polypropylene filled with 40% calcium carbonate offering good stiffness and toughness balance, good thermal and chemical resistance. This compound is used in home appliance industry, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Ultra White

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	25	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	≥ 19	MPa	ISO 527
Tensile Strength@Break	.....	MPa	ISO 527
Elongation@Break	≥ 25	%	ISO 527
Elastic Modulus	.....	MPa	ISO 527
Flexural Modulus	1800	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	4	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

◆ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P50CN-H40R-2099 Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P50CN-H40R-2099 is recycled homopolymer polypropylene filled with 50% calcium carbonate offering good balance of toughness and stiffness, dimensional stability, appropriate dye adhesion, good thermal and chemical resistance. This compound is used in automotive applications especially wheel cover, and other utility products. This grade is designed to be processed in injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.35	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	8	gr/10 min	ASTM D1238

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	13	MPa	ISO 527
Tensile Strength@Break	12	MPa	ISO 527
Elongation@Break	4	%	ISO 527
Flexural Modulus	1700	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	4	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P60CN-H60 Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

P60CN-H60 is homopolymer polypropylene filled with 60% calcium carbonate. This compound is used in building industry and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.5	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	.....	gr/10 min	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	16	MPa	ISO 527
Tensile Strength@Break	14	MPa	ISO 527
Elongation@Break	15	%	ISO 527
Flexural Modulus	1600	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	2.7	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.



کامپاندهای پلی پروپیلن تقویت شده با الیاف شیشه :

آمیزه سازی پلی پروپیلن با الیاف شیشه باعث بهبود چه نوع خواص مکانیکی در محصول میشود ؟

◆ افزایش استحکام کششی

◆ مدول خمشی

◆ ضربه پذیری

◆ پایداری ابعادی

◆ افزایش مقاومت حرارتی

◆ کاهش خزش (CREEP)

◆ کاهش جمع شدگی (SHRINKAGE)

◆ کاهش مکش های سطح قطعه

آمیزه سازی پلی پروپیلن با الیاف شیشه ، در چه صناعی کاربرد دارد ؟

◆ خودروسازی ◆ لوازم ساختمانی

◆ لوازم خانگی و اداری ◆ لوازم الکتریکی

◆ قطعات با استحکام بالا

دیتاشیت





Nirumand Polymer



دیتاشیت

P20GB-C40R

P20GN-C40

P20GN-H40

P30GB-C40R

P30GB-H40

P30GB-H40R

P30GN-C40

P30GN-C70

P30GN-H40

P35GN-H40

P40GB-H40

P40GN-H40

P50GB-C40R

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بازگشت

Technical Data Sheet

P20GB-C40R Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P20GB-C40R is recycled copolymer polypropylene reinforced with 20% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	...	gr/10 min	ASTM D1238
Shrinkage	< 0.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	40	MPa	ISO 527
Elongation @ Break	6	%	ISO 527
Flexural Modulus	3200	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 10	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

♦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20GN-C40 Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P20GN-C40 is copolymer polypropylene reinforced with 20% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good heat and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Natural

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	...	gr/10 min	ASTM D1238
Shrinkage	< 0.1	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	60	Mpa	ISO 527
Elongation@Break	5	%	ISO 527
Flexural Modulus	3500	Mpa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	> 12	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20GN-H40 Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P20GN-H40 is homopolymer polypropylene reinforced with 20% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good heat and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Natural

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	...	gr/10 min	ASTM D1238
Shrinkage	< 0.1	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	65	Mpa	ISO 527
Elongation@Break	5	%	ISO 527
Flexural Modulus	3700	Mpa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	10	kJ/m ²	ISO 180
Notched Charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GB-C40R Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GB-C40R is recycled copolymer polypropylene reinforced with 30% glass fiber. It provides a balance of toughness and mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Black

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	≤ 0.2	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	50	MPa	ISO 527
Tensile Strength@Break	50	MPa	ISO 527
Elongation @ Break	6	%	ISO 527
Flexural Modulus	4000	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 10	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GB-H40 Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GB-H40 is homo polypropylene reinforced with 30% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good heat and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Black

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	...	gr/10 min	ASTM D1238
Shrinkage	< 0.2	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	75	Mpa	ISO 527
Elongation@Break	5	%	ISO 527
Flexural Modulus	5000	Mpa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GB-H40R Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GB H40R is Recycled Homopolymer Polypropylene reinforced with 30% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good heat and chemical resistance. This compound is used in homeappliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Black

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	< 0.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	67	Mpa	ISO 527
Elongation@Yield	4.5	%	ISO 527
Flexural Modulus	4500	Mpa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	6	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GN-C40 Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GN-C40 is copolymer polypropylene reinforced with 30% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimension stability, good heat and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	< 0.8	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	55	Mpa	ISO 527
Elongation@Break	5.5	%	ISO 527
Flexural Modulus	4300	Mpa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 12	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GN-C70 Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GN-C70 is copolymer polypropylene reinforced with 30% glass fiber. It provides high mechanical properties, stiffness, good impact resistance, surface hardness, better dimension stability, good heat and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	70	Mpa	ISO 527
Elongation@Break	5.5	%	ISO 527
Flexural Modulus	4300	Mpa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 9	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30GN-H40 Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P30GN-H40 is virgin homopolymer polypropylene reinforced with 30% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.12	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	≤ 0.2	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	75	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	5000	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P35GN-H40 Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P35GN-H40 is homopolymer polypropylene reinforced with 35% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.16	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	≤ 0.2	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	80	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	5500	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	78	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40GB-H40

Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P40GB-H40 is homopolymer polypropylene reinforced with 40% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	1.21	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	< 0.1	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	90	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	6000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	> 9	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40GN-H40 Homopolymer Polypropylene Reinforced with Glass Fiber

Product Description

P40GN-H40 is homopolymer polypropylene reinforced with 40% glass fiber. It provides high mechanical properties, stiffness, surface hardness, better dimensional stability, good thermal and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.21	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	< 0.1	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	90	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	6000	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	> 9	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	80	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P50GB-C40R Copolymer Polypropylene Reinforced with Glass Fiber

Product Description

P50GB-C40R is recycled copolymer polypropylene reinforced with 50% glass fiber. It provides good balance of toughness and stiffness, surface hardness, dimensional stability, good thermal and chemical resistance. This compound is used in automotive applications, home appliance industry, electrical goods, and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	1.33	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238
Shrinkage	< 0.1	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	67	MPa	ISO 527
Elongation @ Break	6	%	ISO 527
Flexural Modulus	8000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	72	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

PP+Talc

کامپاندهای پلی پروپیلن تقویت شده با تالک :
آمیزه سازی پلی پروپیلن با پرکننده معدنی تالک
باعث بهبود چه نوع خواص مکانیکی در محصول
میشود ؟

- ◆ افزایش استحکام کششی
 - ◆ مدول خمشی
 - ◆ پایداری ابعادی
 - ◆ افزایش مقاومت حرارتی
 - ◆ کاهش جمع شدگی (SHRINKAGE)
 - ◆ کاهش مکش های سطح قطعه
- آمیزه سازی پلی پروپیلن با پرکننده معدنی تالک ، در
چه صنایعی کاربرد دارد ؟

- ◆ خودروسازی
- ◆ لوازم ساختمانی
- ◆ خانگی و اداری
- ◆ لوازم الکتریکی

دیتاشیت





Nirumand Polymer



دیتاشیت



P20TB-C40R



P20TB-H46R



**P20TC-H40R-
3099**



**P20TC-H60-
3091**



P20TN-H40



P30TB-C40R



P40TB-C40R*



P40TB-H46R



P40TN-C36



P40TN-H40



**P50TW-C40-
4348/1**

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ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

P20TB-C40R Copolymer Polypropylene Filled with Talcum Powder

Product Description

P20TB-C40R is recycled copolymer polypropylene filled with 20% talc offering a good balance of toughness and mechanical properties, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in automotive applications, appliance industry, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Black

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.3-1.4	%	Internal

Mechanical Properties	Value	Unit	Test
Tensile Strength@yield	≥ 18	MPa	ISO 527
Tensile Strength@Break	≥ 17	MPa	ISO 527
Elongation@Break	≥ 20	%	ISO 527
Elastic Modulus	.....	MPa	ISO 527
Flexural Modulus	1300	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Notched charpppy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	67	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20TB-H46R

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P20TB-H46R is recycled homopolymer polypropylene filled with 20% talc offering an appropriate balance of toughness and mechanical properties, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in automotive applications, appliance industry and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Black

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.3-1.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	27	MPa	ISO 527
Tensile Strength@Break	23	MPa	ISO 527
Elongation@Break	24	%	ISO 527
Flexural Modulus	1600	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	0	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	63	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20TC-H40R-3099

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P20TC-H40R-3099 is recycled homopolymer polypropylene filled with 20% Talc powder offering better mechanical properties, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in automotive applications, appliance industry, housewares and other utility products. This grade is designed to be processed in conventional injection molding technique.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Gray

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.3-1.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	27	Mpa	ISO 527
Tensile Strength@Break	23	Mpa	ISO 527
Elongation @ Break	24	%	ISO 527
Flexural Modulus	1700	Mpa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	66	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20TC-H60-3091

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P20TC-H60-3091 is homopolymer polypropylene filled with 20% talc powder offering better mechanical properties, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in automotive applications, appliance industry, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Gray

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	27	gr/10 min	ASTM D1238
Shrinkage	1.3-1.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	28	MPa	ISO 527
Tensile Strength @ Break	24	MPa	ISO 527
Elongation @ Break	≥ 15	MPa	ISO 527
Flexural Modulus	1600	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20TN-H40

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P20TN-H40 is homopolymer polypropylene filled with 20% Talc powder offering better mechanical properties, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in automotive applications, appliance industry, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.04	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	7	gr/10 min	ASTM D1238
Shrinkage	1.3-1.4	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	28	MPa	ISO 527
Tensile Strength@Break	24	MPa	ISO 527
Elongation @ Break	≥15	%	ISO 527
Flexural Modulus	2000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3.5	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	68	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P30TB-C40R

Copolymer Polypropylene Filled with Talcum Powder

Product Description

P30TB-C40R is recycled copolymer polypropylene filled with 30% talcum powder by better mechanical properties, dimensional stability, stiffness, good heat and chemical resistance. This compound is used in automotive applications, appliance industry, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	1.13	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.2-1.3	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	> 16	Mpa	ISO 527
Tensile Strength@Break	> 14	Mpa	ISO 527
Elongation@Break	> 20	%	ISO 527
Elastic Modulus	.....	Mpa	ISO 527
Flexural Modulus	1700	Mpa	ISO 178

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	9	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	68	Shore D	ISO 868

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40TB-C40R *

Copolymer Polypropylene Filled with Talcum Powder

Product Description

P40TB-C40R* is recycled copolymer polypropylene filled with 40% talcum powder offering good balance of stiffness and toughness, dimensional stability, good thermal and chemical resistance. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	7	gr/10 min	ASTM D1238
Shrinkage	1.1-1.3	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	17	MPa	ISO 527
Tensile Strength@Break	15	MPa	ISO 527
Elongation@Break	7	%	ISO 527
Flexural Modulus	1800	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	6	kJ/m ²	ISO 180
Notched Charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40TB-H46R

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P40TB-H46R is recycled homopolymer polypropylene filled with 40% talcum powder offering good balance of mechanical properties and toughness, dimensional stability, medium flow, good thermal and chemical resistance. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.1-1.3	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	≥ 16	MPa	ISO 527
Tensile Strength@Break	15	MPa	ISO 527
Elongation@Break	5	%	ISO 527
Flexural Modulus	2000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40TN-C36 Copolymer Polypropylene Filled with Talcum Powder

Product Description

P40TN-C36 is copolymer polypropylene filled with 40% talcum powder offering better mechanical properties, impact resistance, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	6	gr/10 min	ASTM D1238
Shrinkage	1-1.2	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ yield	≥ 17	MPa	ISO 527
Tensile Strength @ Break	15	MPa	ISO 527
Elongation @ Break	≥ 15	%	ISO 527
Flexural Modulus	2000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 8	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	66	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40TN-H40

Homopolymer Polypropylene Filled with Talcum Powder

Product Description

P40TN-H40 is homopolymer polypropylene filled with 40% talcum powder by better mechanical properties, better dimensional stability, stiffness, good heat and chemical resistance. This compound is used in home appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.23	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	8	gr/10 min	ISO 1133
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	≥ 19	Mpa	ISO 527
Tensile Strength@Break	....	Mpa	ISO 527
Elongation@Break	7	%	ISO 527
Flexural Modulus	2500	Mpa	ISO 178

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

◆ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P50TW-C40-4348/1 Copolymer Polypropylene Filled with Talcum Powder

Product Description

P50TW-C40-4348/1 is copolymer polypropylene filled with 50% talcum powder offering better mechanical properties, toughness, dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in appliance industry, automotive applications, electrical goods, housewares and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • White

Physical Properties	Value	Unit	Test Method
Density	1.35	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	11	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	13	MPa	ISO 527
Tensile Strength@Break	12	MPa	ISO 527
Elongation@Break	10	%	ISO 527
Flexural Modulus	1900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 7	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	70	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

NiruFlex

محصولات نیروفلکس بر پایه پلی پروپیلن با توجه به نیاز مشتری و متناسب با کاربرد نهایی، در گریدهای مختلف پلی پروپیلن آلیاژ شده با الاستومر در محدوده وسیعی از سختی ها توسط شرکت نیرومند پلیمر تولید میگردد.

آلیاژ کردن پلیمر با الاستومر (EPDM) باعث بهبود چه نوع خواصی در محصول میشود؟

- ◆ افزایش خاصیت انعطاف پذیری
- ◆ افزایش ضربه پذیری محصول

آلیاژ کردن پلیمر با الاستومر (EPDM)، در چه قطعاتی کاربرد دارد؟

- ◆ سپر، گردگیر، واشر، درزگیر
- ◆ سایر قطعات صنعتی که نیازمند به خاصیت الاستیکی هستند.

دیتاشیت





Nirumand Polymer



دیتاشیت



**V30DB-
V8224-C20**



**V30DB-
B301-C20**



**V35DB-
B305-C20**



**V40DB-
B4534-C20**



**V40DB-
B310-C20**



**V54DB-
X1203-C30**



**V57DB-
BumperUV**



**V57DB-I4680-
C54R(D)**



**V65AB-
I210-C60**



**V65AB-
I210-H40**



**V85AB-
I226-H40**



**V85AB-
X227-C10**

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ENGINEERING PLASTICS

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Nirumand Polymer



Technical Data Sheet

V30DB-V8224-C20

Copolymer Polypropylene Toughened with EPDM

Product Description

V30DB-V8224-C20 is copolymer polypropylene toughened with EPDM offering high flexibility and tear resistance. This compound is used in automotive applications and other utility products. This grade is designed to be processed in blow molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Blow molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	0.95	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	< 2	gr/10 min	ASTM D1238
Shrinkage	.....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	10	MPa	ISO 527
Elongation @Break	≥ 350	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	30	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

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ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

V30DB-B301-C20 Copolymer Polypropylene Toughened with EPDM

Product Description

V30DB-B301-C20 is copolymer polypropylene toughened with EPDM offering good flexibility and tear resistance. This compound is used in automotive applications and other utility products. This grade is designed to be processed in blow molding and injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blow molding, Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	0.95	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	2	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	≥ 8	MPa	ISO 527
Elongation @Break	≥ 350	%	ISO 527
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	....	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	30	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.



Nirumand Polymer



Technical Data Sheet

V35DB-B305-C20

Copolymer Polypropylene Toughened with EPDM

Product Description

V35DB-B305-C20 is copolymer polypropylene toughened with EPDM offering high impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in extrusion and blow molding techniques.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Extrusion, Blow molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	0.94	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	2	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	≥ 10	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	35	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

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ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

V40DB-B4534-C20

Copolymer Polypropylene Toughened with EPDM

Product Description

V40DB-B4534-C20 is copolymer polypropylene toughened with recycled EPDM offering high tear resistance and impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in extrusion and blow molding process.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Extrusion, Blow molding
Color	• Black

Physical Properties	Value	Unit	Test Method
Density	0.94	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	2	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	≥ 10	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	.....	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	40	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.



Nirumand Polymer



Technical Data Sheet

V40DB-B310-C20

Copolymer Polypropylene Toughened with EPDM

Product Description

V40DB-B310-C20 is copolymer polypropylene toughened with EPDM offering high tear resistance and impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in extrusion and blow molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Extrusion, Blow molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	0.94	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	2	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	≥ 10	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	40	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

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ENGINEERING PLASTICS

بازگشت



Nirumand Polymer



Technical Data Sheet

V54DB-X1203-C30

Copolymer Polypropylene Toughened with EPDM

Product Description

V54DB-X1203-C30 is copolymer polypropylene toughened with EPDM offering high mechanical strength, good toughness and suitable tear resistance. This compound is used in cable applications, hoses and other utility products.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Extrusion, Injection molding

Color •Black

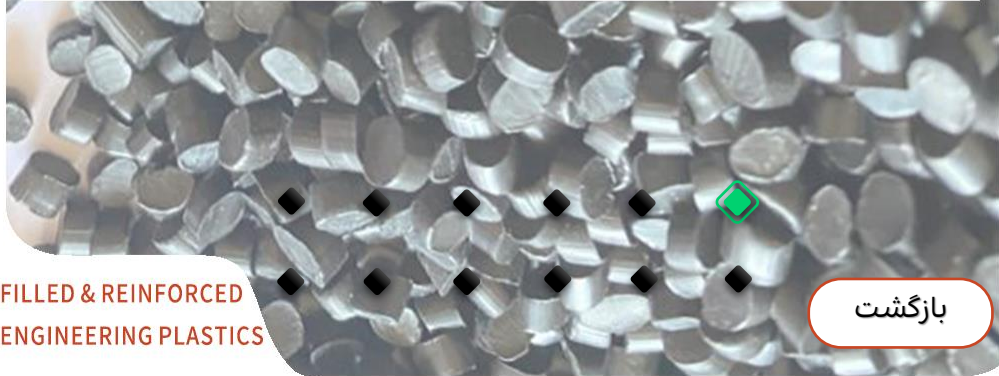
Physical Properties	Value	Unit	Test Method
Density	0.95	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	4	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	20	Mpa	ISO 527
Elongation @ Break	≥ 400	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	54	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.



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ENGINEERING PLASTICS

بازگشت



Nirumand Polymer



Technical Data Sheet

V57DB-Bumper UV Copolymer Polypropylene Toughened with EPDM

Product Description

V57DB-Bumper UV is copolymer polypropylene toughened with EPDM and filled with mineral fillers offering high impact strength and UV resistance. This compound is used in automotive applications exposed to UV radiation especially bumper parts and other utility products. This grade is designed to be processed in conventional injection molding process.

Physical Properties	Value	Unit	Test Method
Density	0.9	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	10	gr/10 min	ASTM D1238
Shrinkage	< 1.7	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	≥18	MPa	ISO 527
Tensile Strength @ Break	....	MPa	ISO 527
Elongation @ Break	≥100	%	ISO 527
Flexural Modulus	900	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 30	KJ/m ²	ISO 180
Hardness	Value	Unit	Test Method
Durometer Hardness (after 5 S)	57	Shore D	ISO 868

❖ Values shown are average & are not to be considered as product specifications.

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بازگشت

Technical Data Sheet

V57DB-I4680-C54R(D) Copolymer Polypropylene Toughened with EPDM

Product Description

V57DB-I4680-C54R(D) is recycled copolymer polypropylene toughened with EPDM offering good impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding molding .

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Black

Physical Properties	Value	Unit	Test Method
Density	0.97	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	11	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	≥ 17	MPa	ISO 527
Elongation @ Break	....	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	> 4	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	....	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	57	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

V65AB-I210-C60 Copolymer Polypropylene Toughened with EPDM

Product Description

V65AB-I210-C60 is copolymer polypropylene toughened with EPDM offering high tear resistance and impact strength. This grade is designed to be processed in extrusion and injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding, Extrusion

Color • Black

Physical Properties	Value	Unit	Test Method
Density	0.96	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	1	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Yield	3.5	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527
Elastic Modulus	....	MPa	ISO 527
Flexural Modulus	....	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charppy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	65	Shore A	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

V65AB-I210-H40 Homopolymer Polypropylene Toughened with EPDM

Product Description

V65AB-I210-H40 is homopolymer polypropylene toughened with EPDM by high impact strength. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	3	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Break	3	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	NB	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	NB	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	65	Shore A	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

V85AB-I226-H40

Homopolymer Polypropylene Toughened with EPDM

Product Description

V85AB-I226-H40 is homopolymer polypropylene toughened with EPDM by high impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding techniques.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	0.94	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	7	gr/10 min	ISO 1133
Shrinkage	...	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	6	Mpa	ISO 527
Tensile Strength@Break	6	Mpa	ISO 527
Elongation @ Break	≥ 250	%	ISO 527

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	N.B	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	85	Shore A	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

V85AB-X227-C10 Copolymer Polypropylene Toughened with EPDM

Product Description

V85AB-X227-C10 is copolymer polypropylene toughened with EPDM offering high impact strength and appropriate tear resistance. This compound is designed to be processed in extrusion process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Extrusion

Color • Black

Physical Properties	Value	Unit	Test Method
Density	0.92	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	≤ 1.5	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Break	≥ 7	MPa	ISO 527
Elongation @ Break	≥ 350	%	ISO 527
Flexural Modulus	....	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	85	Shore A	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

NiruBlend

این گروه شامل محصولات آلیاژ شده با محصولات پلیمری بر پایه پلیمرهای عمومی و مهندسی است که توسط شرکت نیرومندپلیمر تولید میگردد. آلیاژ پلیمرها چه مزایایی برای محصول خواهد داشت؟

- ◆ بهبود خواص مکانیکی
- ◆ بهبود فرآیندپذیری
- ◆ کاهش قیمت

آلیاژ پلیمرها، در چه صنایعی کاربرد دارد؟

- ◆ قطعات خودرو
- ◆ لوازم خانگی
- ◆ لوله و اتصالات آبیاری
- ◆ کاربردهای خاص مانند ورق های ژئوممبران و ...

دیتاشیت





Nirumand Polymer



دیتاشیت

**6A30GN-
A35-636**

6AN-A142

GM-100

GM-R100

**P-C40R-
3-1332**

**P-C40R-
3-1385**

**P-C46R-3-
1232(D)**

**PC/ABS-
AP26**

**PC/ABS-
AP26-B**

PE 40-Pipe

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بازگشت

Technical Data Sheet

6A30GN-A35-636

Polyamide 6 Alloy Reinforced with Glass Fiber

Product Description

6A30GN-A35-636 is polyamide 6 alloy reinforced with 30% glass fiber. It provides a combination of high mechanical properties, stiffness and thermal resistance. This product is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.3	gr/cm ³	ISO 1183
Shrinkage	....	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	100	MPa	ISO 527
Elongation @ Break	5	%	ISO 527
Flexural Modulus	6500	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	8	kJ/m ²	ISO 180
Hardness	Value	Unit	Test Method
Durometer Hardness	....	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

6AN-A142 Polyamide 6 Alloy

Product Description

6AN-A142 is polyamide 6 alloy offering good mechanical properties, stiffness and thermal resistance. This product is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.05	gr/cm ³	ISO 1183
Shrinkage	1.5-1.7	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength @ Yield	50	MPa	ISO 527
Elongation @ Break	20	%	ISO 527
Flexural Modulus	2000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	9	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	75	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

GM-100 Polyethylene Geomembrane Grade

Product Description

GM-100 is a polymeric material of virgin polyethylene. This compound has high performance in the long term application and it is resistant to thermal degradation according to GRI- GM13 Standard Specification. This grade has been designed to be used for geomembrane sheet in general applications.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Extrusion

Color • Black

Physical Properties	Value	Unit	Test Method
Density	> 0.932	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	1 >	gr/10 min	ASTM D1238
Carbon Black content	2 - 2.5	%	ASTM D1603
Carbon Black dispersion	< 3	...	ISIRI 20059
O.I.T (200 °C)	> 100	min	ISO 6-11357

♦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

GM-R100 Polyethylene Geomembrane Grade

Product Description

GM-R100 is a polymeric material of recycled polyethylene. This compound has high performance in the long term application and it is resistant to thermal degradation according to GRI- GM13 Standard Specification. This grade is an economic compound and has been designed to be used for geomembrane sheet in general applications.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Extrusion

Color • Black

Physical Properties	Value	Unit	Test Method
Density	> 0.932	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	1 >	gr/10 min	ASTM D1238
O.I.T (200 °C)	> 100	min	ISO 6-11357

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P-C40R-3-1332 Copolymer Polypropylene

Product Description

P-C40R-3-1332 is recycled copolymer polypropylene having a combination of good mechanical properties and toughness. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• Black

Physical Properties	Value	Unit	Test Method
Density	0.9	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	9	gr/10 min	ASTM D1238
Shrinkage	1.6-1.7	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Yield	≥ 21	MPa	ISO 527
Tensile Strength@ Break	....	MPa	ISO 527
Elongation @ Break	≥ 50	%	ISO 527
Flexural Modulus	900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	14	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	....	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	65	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P-C40R-3-1385 Copolymer Polypropylene

Product Description

P-C40R-3-1385 is recycled copolymer polypropylene toughened with EPDM offering appropriate impact strength and toughness. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection

Color • Black

Physical Properties	Value	Unit	Test Method
Density	0.9	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	10	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Yield	19	MPa	ISO 527
Tensile Strength@ Break	17	MPa	ISO 527
Elongation @ Break	≥ 20	%	ISO 527
Flexural Modulus	900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	18	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	....	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	63	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P-C46R-3-1232(D) Copolymer Polypropylene

Product Description

P-C46R-3-1232(D) is recycled copolymer polypropylene toughened with EPDM by high impact strength. This compound is used in automotive applications and other utility products. This grade is designed to be processed in conventional injection molding molding.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	0.9	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	7	gr/10 min	ASTM D1238
Shrinkage	....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@ Yield	≥ 17	MPa	ISO 527
Tensile Strength@ Break	≥ 14	MPa	ISO 527
Elongation @ Break	≥ 50	%	ISO 527
Flexural Modulus	900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	≥ 23	kJ/m ²	ISO 180
Notched Izod Impact (-20°C)	....	kJ/m ²	ISO 180

Hardness	Value	Unit	Test Method
Durometer Hardness	57	Shore D	ASTM D2240

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

PC/ABS-AP26

Polycarbonate/Acrylonitrile-Butadiene-Styrene Alloy

Product Description

PC/ABS-AP26 is an alloy with good mechanical properties and high impact resistance. This product is used in automotive applications, electronic devices and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Natural

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (260°C/5 Kg)	18	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	50	MPa	ISO 527
Elongation @ Break	18	%	ISO 527
Flexural Modulus	2100	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	35	kJ/m ²	ISO 180

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

PC/ABS-AP26-B

Polycarbonate/Acrylonitrile-Butadiene-Styrene Alloy

Product Description

PC/ABS-AP26-B is an alloy with good mechanical properties and high impact resistance. This product is used in automotive applications, electronic devices and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Color • Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (260°C/5 Kg)	18	gr/10 min	ASTM D1238
Shrinkage	.....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	50	MPa	ISO 527
Elongation @ Break	...	%	ISO 527
Flexural Modulus	2100	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	35	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	...	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

PE 40-Pipe Polyethylene Pipe Grade

Product Description

PE 40-Pipe is a black polyethylene compound filled with well-dispersed carbon black through the polyethylene matrix. This compound has outstanding properties such as good strength in hydrostatic pressure and excellent environmental stress cracking resistance (ESCR) and is classified into PE 40 classification according to ISIRI 7607 and ISO 8779 standard. This grade has been designed to be used in pipe extrusion process for drip irrigation and swage water piping and other pipe applications.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Extrusion

Color •Black

Physical Properties	Value	Unit	Test Method
Density	0.93	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	0.3-0.6	gr/10 min	ASTM D1238
Carbon Black content	2-2.5	%	ASTM D1603
Carbon Black dispersion	< 3	.....	ISIRI 20059
O.I.T (200 °C)	≥ 20	min	ASTM D3895

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	≥ 15	MPa	ISO 527
Elongation@Break	≥ 100	%	ISO 527
Flexural Modulus	≤ 300	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	N.B	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	51	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.



Nirumand Polymer



NiruABS

این گروه محصولات بر پایه ABS است که توسط شرکت نیرومند پلیمر تولید میگردد.

گروه محصولات ABS چه مزایایی برای محصول خواهد داشت؟

- ◆ پایداری ابعادی بالا
- ◆ ضربه پذیری
- ◆ استحکام مناسب
- ◆ براقیت خوب

گروه محصولات ABS، در چه صنایعی کاربرد دارد؟

- ◆ خودروسازی
- ◆ قطعات الکتریکی
- ◆ سایر قطعات مهندسی

دیتاشیت





Nirumand Polymer



دیتاشیت

ABS-I1-1-FR

ABS-I1R-3

ABS-I2R-3

ABS-I3R-3

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بازگشت

Technical Data Sheet

ABS-I1-1-FR Flame Retardant Compound

Product Description

ABS-I1-1-FR is a special acrylonitrile- butadiene- styrene compound having self-extinguish ability making it much safer for the use in the electrical goods, housewares and home appliance complying with the UL-94 regulations, widely accepted fire safety standard. This grade with fine mechanical properties is applicable in injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •Natural

Physical Properties	Value	Unit	Test Method
Density	1.3	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (220°C/10 kg)	....	gr/10 min	ASTM D1238
Flammability (3mm/ 6mm)	V-0	-	UL-94

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	28	MPa	ISO 527
Elongation @ Break	3	%	ISO 527
Flexural Modulus	1800	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

ABS-I1R-3 Acrylonitrile- Butadiene- Styrene

Product Description

ABS-I1R-3 is a recycled thermoplastic with good mechanical properties. This grade is used for a wide range of applications including auto parts, home appliances, electrical parts/fittings, telecommunication and electronic devices. This grade is designed to be used in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection

Color • Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (220°C/10 Kg)	18	gr/10 min	ASTM D1238
Shrinkage	.....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	40	MPa	ISO 527
Elongation @ Break	...	%	ISO 527
Flexural Modulus	1900	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	3	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	...	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

ABS-I2R-3 Acrylonitrile- Butadiene- Styrene

Product Description

ABS-I2R-3 is a recycled thermoplastic with good mechanical properties. This grade is used for a wide range of applications including auto parts, home appliances, electrical parts/fittings, telecommunication and electronic devices. This grade is designed to be used in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection

Color • Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (220°C/10 Kg)	20	gr/10 min	ASTM D1238
Shrinkage	.....	%	Internal
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	33	MPa	ISO 527
Elongation @ Break	...	%	ISO 527
Flexural Modulus	2100	MPa	ASTM D790
Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	4	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179
Hardness	Value	Unit	Test Method
Durometer Hardness	...	Shore D	ASTM D2240

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

ABS-I3R-3 Acrylonitrile- Butadiene- Styrene

Product Description

ABS-I3R-3 is a recycled thermoplastic with good mechanical properties. This grade is used for a wide range of applications including auto parts, home appliances, electrical parts/fittings, telecommunication and electronic devices. This grade is designed to be used in conventional injection molding process.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection

Color • Black

Physical Properties	Value	Unit	Test Method
Melt Mass-flow Rate (MFR) (220°C/10 Kg)	20	gr/10 min	ASTM D1238
Shrinkage	.....	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Yield	33	MPa	ISO 527
Elongation @ Break	...	%	ISO 527
Flexural Modulus	2100	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	6	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	...	Shore D	ASTM D2240

♦ Values shown are average & are not to be considered as product specifications.



Nirumand Polymer



NiruThylene

محصولات نیروتیلن بر پایه پلی اتیلن با توجه به نیاز مشتری، در گریدهای مختلف سبک، سنگین و همراه با پرکننده های معدنی (کربنات کلسیم) توسط شرکت نیرومندپلیمر تولید میگردد. آمیزه سازی پلی اتیلن با پرکننده معدنی کربنات کلسیم باعث بهبود چه نوع خواص مکانیکی در محصول میشود؟

- ◆ افزایش پایداری ابعادی
- ◆ افزایش مقاومت حرارتی
- ◆ کاهش جمع شدگی (Shrinkage)
- ◆ کاهش مکش های سطح قطعه
- ◆ اقتصادی تر شدن
- ◆ آمیزه سازی پلی اتیلن با پرکننده معدنی کربنات کلسیم، در چه صناعی کاربرد دارد؟
- ◆ خودروسازی
- ◆ لوازم ساختمانی و بهداشتی
- ◆ کشاورزی

دیتاشیت



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ENGINEERING PLASTICS

بازگشت



Nirumand Polymer



دیتاشیت



**PE15CB-
HD10-4325**



**PE30CN-
HD60-4403**



**PE50CN-
HD10-4243**

پلاستیک پر

FILLED & REINFORCED
ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

PE15CB-HD10-4325

High Density Polyethylene Filled with Calcium Carbonate

Product Description

PE15CB-HD10-4325 is high density polyethylene filled with 15% calcium carbonate powder offering good balance of mechanical properties and dimensional stability, stiffness, good thermal and chemical resistance. This grade is designed to be processed in conventional thermoforming process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Thermoforming
Color	•Black

Physical Properties	Value	Unit	Test Method
Density	1.06	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	≤ 0.5	gr/10 min	ASTM D1238
Shrinkage	3-5	%	Internal

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	21	MPa	ISO 527
Tensile Strength@Break	12	MPa	ISO 527
Elongation@Break	26	%	ISO 527
Elongation@yield	13	%	ISO 527
Flexural Modulus	1000	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	21	kJ/m ²	ISO 180
Notched charpy Impact (23°C)	...	kJ/m ²	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	60	Shore D	ASTM D2240

♦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

PE30CN-HD60-4403

High Density Polyethylene Filled with Calcium Carbonate

Product Description

PE30CN-HD60-4403 is high density polyethylene filled with 30% calcium carbonate powder offering good balance of mechanical properties and dimensional stability, stiffness, good thermal and chemical resistance. This compound is used in , home appliance industry, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•White

Properties	Value	Unit	Test Method
Density	1.2	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	20	gr/10 min	ASTM D1238
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Increase of productivity

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

PE50CN-HD10-4243

High Density Polyethylene Filled with Calcium Carbonate

Product Description

PE50CN-HD10-4243 is high density polyethylene filled with 50% calcium carbonate. This grade features excellent filler dispersion in polymer resin, good tensile strength and rigidity of produced film. This compound is used in film blowing, T-die casting film production and blow molding process. Moreover, it results in improving productivity and decreasing product costs.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Film blowing, blow molding
Color	• White

Properties	Value	Unit	Test Method
Density	1.4	gr/cm ³	ISO 1183
Dispersion	Excellent	...	Internal Method
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Improve printability

Increase of productivity

Decrease finished product cost

Increase rigidity of produced film

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

NiruAdd

گروه محصولات مستریج های افزودنی که موجب ارتقا و بهبود خواص و کیفیت محصولات نهایی میشود، توسط شرکت نیرومندپلیمر تولید میگردد. گروه محصولات NIRUADD شامل چه محصولاتی است؟

- ◆ انواع مستریج های سفید
- ◆ انواع مستریج های مشکی
- ◆ براق کننده
- ◆ جاذب اشعه UV
- ◆ تاخیرانداز شعله
- ◆ آنتی بلاک
- ◆ آنتی اکسیدان

گروه محصولات NIRUADD ، در چه صناعی کاربرد دارد؟

- ◆ بسته بندی
- ◆ لوازم خانگی
- ◆ لوازم بهداشتی و ساختمانی

دیتاشیت





Nirumand Polymer



دیتاشیت



Niruadd-AB



Niruadd-AO



Niruadd-
Black



Niruadd-FR



Niruadd-OB



Niruadd-UV
Absorber



Niruadd-W20



Niruadd-W40



Niruadd-W60



Niruadd-W70



Niruadd-
W70-UL

FILLED & REINFORCED
ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

Niruadd-AB Anti Block Masterbatch

Product Description

Niruadd-AB is an anti block masterbatch is used to prevent sticking two layers. The addition of an anti blocking agent creates space between two plastic layers (surface roughness) and reduces eliminates blocking and sticking of polymeric films. It has been recommended for in PE, PP, PO blown film products, blow molding and casting processing. The addition of anti block masterbatch in film avoids blocking during wind-up, regulates the slip and anti-static properties of additive films and improve macginability at the converter and end-user.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, BOPP film processing, cast film
Appearance	•Translucent

Physical Properties	Value	Unit	Test Method
Density	1.01	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	.....	gr/10 min	ASTM D1238

Usage

The addition rate of the Niruadd-AB depends on thickness of the film and should be adjusted as following instruction:

Thickness (μm)	Niruadd-AB (%)
25	0.75
50	0.50
100	0.25

Special characteristics

Reduce the adhesion effects of plastic products distinctly

When the ratio is suitable, it will not affect the transparent property

Regulate slip and antistatic properties

Facilitates winding and unwinding of the film reels

◆ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-AO Anti Oxidant Masterbatch

Product Description

Niruadd-AO is an anti oxidant masterbatch is used to provide protection against thermal degradation of polymer during process and improves product performance in the long term application. it can be used for the thermal stabilization of HDPE, LDPE, LLDPE, EVA and PP. It should be added during the extrusion process where high temperatures or high residence times cause degradation, cross linking, gel formation, carbonised particles and loss of mechanical properties. Niruadd-AO is the preferred stabilizer system for Blown Film, Profile Extrusion, Film Casting, etc. where the processing temperature does not exceed 280 °C.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Pipe extrusion, Extrusion blow molding, Profile and Sheet extrusion
Appearance	•Translucent

Physical Properties	Value	Unit	Test Method
Density	0.93	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	15	gr/10 min	ASTM D1238

Usage

The addition rate of the Niruadd-AO depends on the processing temperature and the residence time of the material in the machine.

Stabilization improvement: 1-2%

During recycling: 2-3%

Extrusion of rework: 2-3%

Special characteristics

Long term thermal stability

Protection against degradation of polymer during repeated processing

Improvement in ageing resistance-high temperature processing

Excellent dispersion

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-Black Black Masterbatch

Product Description

Niruadd-Black is a black colour masterbatch which is contained up to 40% carbon black. This masterbatch is applicable in high quality specialty applications such as film coating, pipe extrusion, molding for automotive and houseware parts and protectivity against UV light. This masterbatch has an excellent dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Injection molding
Appearance	•Black

Physical Properties	Value	Unit	Test Method
Density	1.15	gr/cm ³	ISO 1183
Carbon Content	38 - 42	%	Internal
Carbon Black Dispersion	OK	-	Internal
Moisture Content	< 0.2	%	ASTM D570

Usage

Niruadd-Black can be added from 1 to 3% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

- Excellent dispersion
- Formulation suited for thick and thin wall molding applications
- Formulations in polyolefins and engineering resins
- Easy to incorporate
- Improves appearance of recycled polymers
- Glossy surface
- It gives protectivity against UV light

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-FR Flame Retardant Compound

Product Description

Niruadd-FR is an especial PP compound having self-extinguishability making it much safer for the use in the electrical goods, housewares and home appliance applications complying with the UL-94 regulations, widely accepted fire safety standard. Niruadd-FR provides excellent balance of mechanical properties and processability within flame retardant properties.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Injection molding

Appearance • Natural

Physical Properties	Value	Unit	Test Method
Density	2.3	gr/cm ³	ISO 1183

Usage

Niruadd-FR can be physically added to the neat PP. The recommended minimum quantity to obtain V-0 value of flame retardancy is about 10 % by weight. The addition level will vary depending on the application of product and required self-extinguishability.

Special characteristics

The excellent dispersion of the additives in the base resin

Easy processing without affecting the mechanical properties of the finished product

Eliminate microscopic phase separation in finished products.

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-OB Optical Brightener Masterbatch

Product Description

Niruadd-OB is an optical brightener masterbatch which is called Fluorescent Whitening agents. This masterbatch is added in polymers to reduce yellowing, improve whiteness and to enhance the brightness of a product. This masterbatch works via absorbing light in the UV spectrum and emits light in the blue region of visible spectrum to yield a brighter and fresher appearance.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Cast film, Injection molding
Appearance	•Optical Green

Physical Properties	Value	Unit	Test Method
Density	0.93	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR) (230°C/2.16 kg)	....	gr/10 min	ASTM D1238

Usage

Niruadd-OB can be added from 0.1 to 1% during processing of polymer. The addition level will vary depending on the application of product.

Special characteristics

- Brighten colors
- Improve initial colors
- Reduce yellowing of plastics
- Get brilliancy of colored or black pigmented articles
- Improve brightness of recycled polymers
- Glossy surface
- It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-UV Absorber Light Stabilizer Masterbatch

Product Description

Niruadd-UV Absorber is a light stabilizer masterbatch is used to provide protection against UV-radiation of the sun which cause to initiate or accelerate chain scission and/or cross-linking reactions. This masterbatch is added in polymers to reduce loosing its properties and becoming brittle. This masterbatch contains additives with very low volatility and can be used in both cast and blown film processes for the manufacture of films with different thickness. It can be used with all types of polyolefines PE, PP, EVA and other copolymers.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Blown film, Cast film, Injection molding
Appearance	• Light yellow

Physical Properties	Value	Unit	Test Method
Density	0.9	gr/cm ³	ISO 1183
Color change (db) (after 9 hr of UV radiation)	< 5	-	Internal
Color change (db) (after 18 hr of UV radiation)	< 6	-	Internal

Usage

Niruadd-Anti UV can be added from 1.5 to 5% during processing of polymer. The addition level will vary depending on the application of product.

Special characteristics

- The excellent dispersion of the additives in the base resin
- Easy processing without affecting the mechanical properties of the finished product
- Eliminate yellowing of plastics in exposed of sun light

✦ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-W20 White Masterbatch

Product Description

Niruadd-W20 is an white colour masterbatch which is contained up to 20% pigment. This masterbatch is applicable in good quality specialty applications such as film coating, extrusion coating, molding for food contact, medical devices and products for photographic applications. This masterbatch has an excellent dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Blown film, Cast film, Injection molding
Appearance	• White

Physical Properties	Value	Unit	Test Method
Density	1.95	gr/cm ³	ISO 1183
Filler Content	79	%	ISO 3451/1
Pigment Content	20	%	-
Dispersion	OK	-	Internal
Moisture Content	< 0.25	%	ASTM D570

Usage

Niruadd-W20 can be added from 1 to 5% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

- Excellent dispersion
- Formulations in polyolefins and engineering resins
- Easy to incorporate
- Improve whiteness of recycled polymers
- Glossy surface
- It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-W40 White Masterbatch

Product Description

Niruadd-W40 is a white colour masterbatch which is contained up to 40% pigment. This masterbatch is applicable in good quality specialty applications such as film coating, extrusion coating, molding for food contact and products for photographic applications. This masterbatch has an excellent dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Blown film, Cast film, Injection molding
Appearance	• White

Physical Properties	Value	Unit	Test Method
Density	1.97	gr/cm ³	ISO 1183
Filler Content	79	%	ISO 3451/1
Pigment Content	40	%	-
Dispersion	OK	-	Internal
Moisture Content	< 0.25	%	ASTM D570

Usage

Niruadd-W40 can be added from 1 to 5% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

- Excellent dispersion
- Formulations in polyolefins and engineering resins
- Easy to incorporate
- Improve whiteness of recycled polymers
- Glossy surface
- It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-W60 White Masterbatch

Product Description

Niruadd-W60 is a white colour masterbatch which is applicable in high quality specialty applications such as film coating, extrusion coating, molding for food contact, medical devices and products for photographic applications. This masterbatch has an excellent dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Cast film, Injection molding
Appearance	•White

Physical Properties	Value	Unit	Test Method
Density	1.56	gr/cm ³	ISO 1183
Pigment Content	45	%	ISO 3451/1
Caco3 Content	15	%	ISO 3451/1
Dispersion	OK	-	Internal
Moisture Content	< 0.25	%	ASTM D570

Usage

Niruadd-W60 can be added from 1 to 5% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

Excellent dispersion
Formulation suited for thick and thin wall molding applications
Formulations in polyolefins and engineering resins
Easy to incorporate
Improve whiteness of recycled polymers
Glossy surface
It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-W70 White Masterbatch

Product Description

Niruadd-W70 is a super white colour masterbatch which is applicable in high quality specialty applications such as film coating, extrusion coating, molding for food contact, medical devices and products for photographic applications. This masterbatch has an excellent dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Cast film, Injection molding
Appearance	•White

Physical Properties	Value	Unit	Test Method
Density	1.75	gr/cm ³	ISO 1183
Filler Content	70	%	ISO 3451/1
Pigment Content	55	%	-
Dispersion	OK	-	Internal
Moisture Content	< 0.25	%	ASTM D570

Usage

Niruadd-W70 can be added from 1 to 5% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

- Excellent dispersion
- Formulation suited for thick and thin wall molding applications
- Formulations in polyolefins and engineering resins
- Easy to incorporate
- Improve whiteness of recycled polymers
- Glossy surface
- It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Niruadd-W70-UL White Masterbatch

Product Description

Niruadd-W70-UL is an ultra white colour masterbatch which is contained up to 70% white pigment. This masterbatch is applicable in high quality specialty applications such as film coating, extrusion coating, molding for food contact, medical devices, injection molded parts and products for photographic applications. This masterbatch has superior dispersion which is critical for an appropriate and homogeneous colour distribution of finished products.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Blown film, Cast film, Injection molding
Appearance	•Ultra white

Physical Properties	Value	Unit	Test Method
Density	1.75	gr/cm ³	ISO 1183
Filler Content	70	%	ISO 3451/1
Pigment Content	70	%	-
Dispersion	OK	-	Internal
Moisture Content	< 0.25	%	ASTM D570

Usage

Niruadd-W70-UL can be added from 1 to 5% during processing of polymer products. The addition level will vary depending on the application of product.

Special characteristics

- Excellent dispersion
- Formulation suited for thick and thin wall molding applications
- Formulations in polyolefins and engineering resins
- Easy to incorporate
- Improve whiteness of recycled polymers
- Glossy surface
- It gives smooth and glossy surface of film

❖ Values shown are average & are not to be considered as product specifications.



Nirumand Polymer



NiruCalcit

این گروه شامل محصولات بر پایه پلی اتیلن و پلی پروپیلن می باشد که با توجه به نیاز مشتریان در گریدهای مختلف همراه با پرکننده کربنات کلسیم، توسط شرکت نیرومند پلیمر تولید میگردد.

استفاده از پرکننده کربنات کلسیم در گروه محصولات NiruCalcit باعث بهبود چه نوع خواصی در محصولات میگردد؟

- ◆ حفظ خواص مکانیکی و ظاهری
- ◆ کاهش قیمت
- ◆ بهبود در فرآیندپذیری
- ◆ بهبود چاپ پذیری
- ◆ ثبات ابعادی

همچنین به دلیل استفاده از پرکننده معدنی این محصولات را می توان به عنوان محصول دوست دار محیط زیست نیز معرفی نمود.

گروه محصولات NiruCalcit، در چه صناعی کاربرد دارد؟

- ◆ بسته بندی
- ◆ لوازم خانگی
- ◆ لوازم بهداشتی
- ◆ باغبانی و کشاورزی

دیتاشیت





Nirumand Polymer



دیتاشیت



**Nirucalcit-
H50**



**Nirucalcit-
H60-CUW**



**Nirucalcit-
HD20**



**Nirucalcit-
I60**



**Nirucalcit-
LD20**



**Nirucalcit-
LLD10**



**Nirucalcit-
Raffia**



**Nirucalcit-
Raffia E**

FILLED & REINFORCED
ENGINEERING PLASTICS

بازگشت

Technical Data Sheet

Nirucalcit-H50

Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-H50 is homopolymer polypropylene filled with calcium carbonate with increased stiffness and better dimensional stability. This grade features medium melt flow index and excellent filler dispersion in polymer resin. This compound is used in garden furniture, home appliance industries, automotive applications, toys, housewares and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Injection molding
Color	• White

Properties	Value	Unit	Test Method
Density	1.99	gr/cm ³	ISO 1183
Filler Content	82	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of the filler in the matrix

Medium melt flow index

Increase of productivity

Decrease product cost

Increase stiffness and dimensional stability of finished product

White pigment saving

◆ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-H60-CUW

Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-H60-CUW is homopolymer polypropylene filled with calcium carbonate with increased stiffness and better dimensional stability. This grade features high melt flow index and snowy/shiny appearance in finished products. This compound is used in garden furniture, home appliance industries, sanitary, housewares, electrical goods and other utility products. This grade is designed to be processed in conventional injection molding process.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Ultra White

Properties	Value	Unit	Test Method
Density	1.93	gr/cm ³	ISO 1183
Filler Content	80	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of the filler in the matrix

High melt flow index

Increase of productivity

Increase stiffness and dimensional stability of finished product

Snowy/shiny appearance in finished products

No need to add white pigment

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-HD20

High Density Polyethylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-HD20 is high density polyethylene filled with calcium carbonate. This grade features excellent filler dispersion in polymer resin, good tensile strength and rigidity of produced film. This compound is used in film blowing, T-die casting film production and blow molding process. Moreover, it results in improving productivity and decreasing product costs.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Film blowing, blow molding
Color	•White

Properties	Value	Unit	Test Method
Density	2	gr/cm ³	ISO 1183
Filler Content	82	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Improve printability

Increase of productivity

Decrease finished product cost

Increase rigidity of produced film

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-I60

Low Density Polyethylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-I60 is low density polyethylene filled with calcium carbonate. It combines good toughness and stiffness, high flow and productivity of product. Moreover, it reduces raw materials cost. This grade is designed to be processed in injection molding process.

General Properties

Material Status •Commercial: Active

Forms •Pellets

Processing Method •Injection molding

Color •White

Properties	Value	Unit	Test Method
Density	1.98	gr/cm ³	ISO 1183
Filler Content	80	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Improve impact resistance of neat polyethylene

Increase of productivity

Decrease finished product cost

Increase stiffness and dimensional stability

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-LD20

Low Density Polyethylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-LD20 is low density polyethylene filled with calcium carbonate. This grade features excellent filler dispersion in polymer resin, good tear resistance and flexibility of produced film. This compound is used in film blowing process. Moreover, it results in improving productivity and decreasing product costs.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Film blowing
Color	•White

Properties	Value	Unit	Test Method
Density	2	gr/cm ³	ISO 1183
Filler Content	82	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Improve printability

Increase of productivity

Decrease finished product cost

Increase tear resistance and flexibility of produced film

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-LLD10

Linear Low Density Polyethylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-LLD10 is linear low density polyethylene filled with calcium carbonate. This grade features excellent filler dispersion in polymer resin, a balance of good tensile strength and flexibility of produced film and higher filler loading in base resin. This compound is used in film blowing process. Moreover, it results in improving productivity and decreasing product costs.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Film blowing
Color	•White

Properties	Value	Unit	Test Method
Density	2	gr/cm ³	ISO 1183
Filler Content	82	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.25	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of filler in the matrix

Provide a balance of tensile strength and flexibility of film

Increase of productivity

Decrease finished product cost

Increase filler loading in base resin

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-Raffia

Homopolymer Polypropylene Filled with Calcium Carbonate

Product Description

NIRUCALCIT-Raffia is homopolymer polypropylene filled with calcium carbonate. This grade features medium melt flow index, excellent filler dispersion in polymer resin and higher filament strength. This compound is used in thin cast films, PP multi-filament yarn production, fiber spinning and also can be used in conventional raffia application. This grade is designed to be processed in film casting and fiber spinning processes.

General Properties

Material Status	• Commercial: Active
Forms	• Pellets
Processing Method	• Film casting, Fiber spinning
Color	• White

Properties	Value	Unit	Test Method
Density	1.93	gr/cm ³	ISO 1183
Filler Content	80	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.1	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of the filler in the matrix

Medium melt flow index

Increase of productivity

Decrease product cost

Increase extensional resistance of produced filament

White pigment saving

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

Nirucalcit-Raffia E

Polyolefin Filled with Calcium Carbonate

Product Description

NIRUCALCIT-Raffia E is polyolefin filled with calcium carbonate. This grade features medium melt flow index, excellent filler dispersion in polymer resin and higher filament strength. This compound is used in thin cast films, PP multi-filament yarn production, fiber spinning and also can be used in conventional raffia application. This product is an economic grade and designed to be processed in film casting and fiber spinning processes.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Film casting, Fiber spinning
Color	•White

Properties	Value	Unit	Test Method
Density	1.93	gr/cm ³	ISO 1183
Filler Content	80	%	ISO 3451/1
Dispersion	Excellent	...	Internal
Moisture	≤ 0.2	%	ASTM D570

Special Characteristics

Appropriate miscibility with base resin

The excellent dispersion of the filler in the matrix

Medium melt flow index

Increase of productivity

Decrease product cost

Increase extensional resistance of produced filament

White pigment saving

✦ Values shown are average & are not to be considered as product specifications.

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این گروه شامل دو دسته محصولات زیست پایه (BASED-BIO) و زیست تخریب پذیر (BIODEGRADABLE) است، که توسط شرکت نیرومندپلیمر تولید میگردد.

◆ محصولات زیست پایه بر پایه پلی پروپیلن و حاوی آرد نشاسته هستند و قابلیت شکل دهی در فرایندهای تزریق و ترموفرمینگ و وکیوم فرمینگ را دارند.

◆ محصولات زیست تخریب پذیر بر پایه پلی لاکتیک اسید (PLA)، پلی بوتیلن آدیپات کوترفتالات (PBAT) بوده و به صورت ۱۰۰ درصد در محیط زیست تجزیه می گردند. این محصولات برای فرآیند فیلم دمشی مناسب می باشند.



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محصولات نیروبایو، دوستدار محیط زیست بوده و جایگزین مناسبی برای مواد خام پلیمری بوده و در نتیجه موجب کاهش استفاده از مواد اولیه نفتی غیر قابل تجدید و کاهش گازهای گل خانه ای می گردند .

گروه محصولات NiruBio ، در چه محصولاتی کاربرد دارد ؟

- ◆ تولید ظروف یکبار مصرف گیاهی مانند ظروف غذاخوری، قاشق، چنگال، لیوان
- ◆ فیلم های زیست تخریب پذیر
- ◆ استفاده در پرینتر های سه بعدی

[دیتاشیت](#)



Nirumand Polymer



دیتاشیت

**P20SN-
H30-4852**

**P20SN-
H50-4852**

**P40SN-
H30-4853**

**P40SN-
H50-4853**

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بازگشت

Technical Data Sheet

P20SN-H30-4852 Biobased Compound

Product Description

P20SN-H30-4852 is a bio-based compound filled with 20% starch that offers good balance of mechanical properties, good dimensional stability and excellent filler dispersion in polymer resin. This compound is used in disposable containers. The above grade is designed to be used in thermoforming process. These materials are environmentally friendly.

General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Thermoforming

Color • Natural

Physical Properties	Value	Unit	Test Method
Density	1.44	gr/cm3	ISO 1183
Melt Mass-flow Rate (MFR)	7	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	12	Mpa	ISO 527
Flexural Modulus	2000	Mpa	ASTM D790

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P20SN-H50-4852 Biobased Compound

Product Description

P20SN-H50-4852 is a bio-based compound filled with 20% starch that offers good balance of mechanical properties, good dimensional stability and excellent filler dispersion in polymer resin. This compound is used in disposable containers. The above grade is designed to be used in injection molding process. These materials are environmentally friendly.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	• Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.44	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR)	12	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	13	Mpa	ISO 527
Flexural Modulus	2200	Mpa	ASTM D790

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40SN-H30-4853 Biobased Compound

Product Description

P40SN-H30-4853 is a bio-based compound filled with 40% starch that offers good balance of mechanical properties, good dimensional stability and excellent filler dispersion in polymer resin. This compound is used in disposable containers. The above grade is designed to be used in thermoforming process. These materials are environmentally friendly.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Thermoforming
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.32	gr/cm ³	ISO 1183
Melt Mass-flow Rate (MFR)	7	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	11	Mpa	ISO 527
Flexural Modulus	1600	Mpa	ASTM D790

❖ Values shown are average & are not to be considered as product specifications.

Technical Data Sheet

P40SN-H50-4853 Biobased Compound

Product Description

P40SN-H50-4853 is a bio-based compound filled with 40% starch that offers good balance of mechanical properties, good dimensional stability and excellent filler dispersion in polymer resin. This compound is used in disposable containers. The above grade is designed to be used in injection molding process. These materials are environmentally friendly.

General Properties

Material Status	•Commercial: Active
Forms	•Pellets
Processing Method	•Injection molding
Color	•Natural

Physical Properties	Value	Unit	Test Method
Density	1.32	gr/cm3	ISO 1183
Melt Mass-flow Rate (MFR)	12	gr/10 min	ASTM D1238
Mechanical Properties	Value	Unit	Test Method
Tensile Strength@yield	11	Mpa	ISO 527
Flexural Modulus	1700	Mpa	ASTM D790

❖ Values shown are average & are not to be considered as product specifications.



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خدمات

< خدمات فنی و مهندسی

< خدمات آزمایشگاهی

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خدمات آزمایشگاهی

< خدمات آزمایشگاهی

< آزمون های آزمایشگاه

< تجهیزات آزمایشگاه

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بازگشت



خدمات فنی و مهندسی

- ◆ مشاوره فنی و تخصصی رایگان در راستای انتخاب مواد اولیه مناسب به مشتریان
- ◆ فراهم کردن بستر مناسب برای همکاری صنعت با دانشگاه از طریق همکاری با پژوهشگران و دانشجویان مستعد در زمینه تولید محصولات جدید و نوآوری در صنعت پلیمر
- ◆ تدوین پروژه های علمی و پژوهشی در صنعت پلیمر و قطعات پلاستیکی مهندسی
- ◆ امکانات آزمایشگاهی تخصصی



خدمات آزمایشگاهی

- ◆ امکانات آزمایشگاهی تخصصی
- ◆ مشاوره فنی و تخصصی رایگان در راستای انتخاب مواد اولیه مناسب به مشتریان
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- ◆ تدوین پروژه های علمی و پژوهشی در صنعت پلیمر و قطعات پلاستیکی مهندسی

آزمون های آزمایشگاهی

این آزمایشگاه به صورت تخصصی قادر به انجام آزمون هایی جهت تعیین مشخصات فیزیکی، مکانیکی، حرارتی و نوری مواد اولیه پلیمری، مسترچ های کربناتی، لاستیک، پلی آمید PA، پلی پروپیلن PP، پلی اتیلن PE، آکرو نیتریل بوتادین استایرن ABS، پلی استال POM، و ... (به صورت ساده و یا تقویت شده) مطابق با استانداردهای بین المللی (ASTM، EN، DIN، ISO و ...) است.



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تجهیزات آزمایشگاهی

آزمایشگاه شرکت نیرومند پلیمر دارای تجهیزات مدرن و به روز برای انجام تست‌های زیر با توجه به درخواست مشتریان می باشد.

STANDARD	TEST
ISO 3451/1	FILLER CONTENT
ASTM D570	MOISTURE CONTENT
ASTM D2240	HARDNESS
ISO 180/ASTM D256	IZOD IMPACT STRENGTH
ISO 179	CHARPY IMPACT STRENGTH
ASTM D1238	MFI
ISO 1183	DENSITY
ASTM D790	FLEXURAL MODULUS
ISO 527	TENSILE
ASTM D92	FLASH POINT
ASTM D648/ISO 75	HDT
ASTM D1525	VICAT
ISO 11357-6	DSC.OIT
ASTM D3814	MELTING POINT
ASTM D1986	VISCOSITY

چرا نیرومند پلیمر؟

اگر در جستجوی یک شرکت معتبر و با تجربه در زمینه تولید پلاستیک های مهندسی و تقویت شده هستید، ما شرکت نیرومند پلیمر را به شما پیشنهاد میکنیم، چون که:

- ◆ تولیدکننده برتر در زمینه کامپاندهای تقویت شده
- ◆ دارای نیم قرن تجربه
- ◆ شرکت نوآور و دانش بنیان در زمینه تولید محصولات
- ◆ ثبات در کیفیت و توجه به جزئیات
- ◆ آزمایشگاه مجهز و دارای گواهی تایید صلاحیت بر اساس استاندارد ISO/IEC ۱۷۰۲۵ از سازمان ملی تایید صلاحیت ایران (NACI)
- ◆ به کارگیری دانش مهندسی مطابق با فناوری روز دنیا
- ◆ استفاده از تجهیزات مدرن و به روز
- ◆ واحد نمونه صادراتی پویا
- ◆ دوستدار محیط زیست



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دستاوردها

افتخارات و گواهی نامه‌ها

مقالات

نوآوری

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بازگشت

افتخارات و گواهی نامه‌ها

۱۳۹۵:

♦ دریافت تقدیر نامه ۳ ستاره از جایزه تعالی

۱۳۹۸:

♦ اخذ عنوان دانش بنیان برای ۱۴ محصول تولیدی
نیرومند پلیمر

۱۳۹۹:

♦ دریافت گواهی نامه تحقیق و توسعه از وزارت
صنعت، معدن و تجارت
♦ انتخاب به عنوان واحد نمونه صادراتی صنایع
کوچک

۱۴۰۰:

♦ انتخاب به عنوان واحد صادراتی پویا در جشنواره
انجمن ملی صنایع پلیمر ایران
♦ انتخاب به عنوان شرکت نوآور و دریافت نشان
شایستگی یک ستاره در چهارمین همایش ملی
نوآوری در صنایع پلیمر
♦ انتخاب به عنوان شرکت دانش بنیان برتر
صادراتی در باشگاه شرکت های صادراتی دانش



افتخارات و گواهی نامه‌ها

۱۴۰۱:

- ◆ انتخاب به عنوان شرکت چهار ستاره صادراتی در باشگاه شرکت های صادراتی دانش بنیان
- ◆ دریافت نشان تولید کننده برتر در جشنواره تولید ملی-افتخار ملی
- ◆ کسب عنوان صادرکننده پویا در دومین همایش بین المللی توسعه صادرات صنایع پلیمری
- ◆ موفق به تمدید گواهینامه دانش بنیان

گواهی نامه ها:

ISO 17025 FOR LAB MANAGEMENT ◆

EFQM ◆

REACH COMPLIANCE ◆

ISO 9001 : 2015 ◆





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مقالات

مقالات پژوهشی نیرومند پلیمرپارس در کنفرانس
مستربچ و کامپاند

سال

عنوان

۱۴۰۱

Effect of PEG on the Mechanical and Anti-Bacterial Properties of PLA in the presence of Nano-silver particles

۱۴۰۰

**اصلاح خواص مکانیکی آکریلونیتریل بوتادین استایرن
بازیافتی با استفاده از سازگارکننده ها و رابر**

۱۳۹۸

A review of polyethylene breathable film applications and properties

مقالات

مقالات نیرومند پلیمر پارس در سمینار بین المللی
علوم و فناوری پلیمر ISPST

سال	عنوان
<u>۱۴۰۱</u>	Mechanical and electro conductive properties of glass fiber reinforced polyethylene filled with graphite
<u>۱۴۰۱</u>	Improvement of thermal properties of polypropylene and investigation of mechanical properties of Cyclic Copolymer / polypropylene blend
<u>۱۳۹۹</u>	Investigation of biodegradation behavior and mechanism, thermal degradation behavior and mechanical properties of biopolymers: A review



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مقالات

مقالات پژوهشی نیرومند پلیمر پارس در همایش
ملی پلیمر ایران

سال

عنوان

۱۴۰۰

مروری بر دسته بندی تاخیرانداز شعله ها، مکانیسم اثر
آنها و بررسی و تعیین تاخیر انداز شعله های مناسب
پلیمرهای PA,PC,PP,ABS



نوآوری

شرکت نیرومندپلیمر با تکیه بر کادر مجرب و تیم تحقیقاتی خود در صدد ایجاد نوآوری در محصولات در راستای گسترش سبد محصولات و رفع نیاز مشتریان به روش نوآورانه می باشد. برخی از نوآوری ها در محصولات تولیدی به شرح زیر می باشد:

- ◆ تولید کامپاند زیست پایه به جهت کاهش استفاده از منابع نفتی تجدید ناپذیر و کمک به تولید محصولات دوستدار محیط زیست
- ◆ تولید آلیاژ های پلیمری به جهت بهینه سازی خواص و اقتصادی نمودن محصول نهایی
- ◆ تولید کامپاند با خاصیت رسانایی الکتریکی جهت تولید برخی از قطعات خودرو
- ◆ ایجاد خواصی همچون مقاومت به اشتعال، خراش در محصولات تولیدی
- ◆ استفاده از مواد بازیافتی در برخی از محصولات با حفظ خواص و کاهش قیمت و با هدف کاهش ضایعات پلاستیکی و حفظ محیط زیست





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تهران، پاکدشت، شهرک صنعتی عباس
آباد، بلوار سعدی، خیابان یکم بوستان
خیابان عقاب، پلاک ۱۵۹۷