+135-3858-6433 (GuangDong)
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PEBAX® RNEW® 55R53 SP 01

Pebax® Rnew® 55R53 SP 01 resin is a thermoplastic elastomer made of flexible polyether and rigid polyamide based on renewable resources. This SP grade has been developed to be heat and UV resistant.

The percentage of **renewable carbon measured** according to ASTM D6866 is 62%.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Molding Shrinkage, parallel	1.0 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.0 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	- / 160 - / 23200	MPa psi	ISO 527-1/-2
Stress at 50% Strain	- / 13.4 - / 1940	MPa psi	ISO 527-1/-2
Strain at Break	- / >50	%	ISO 527-1/-2
Strain at Break TPE	>300 / *	%	ISO 527-1/-2
Stress at Break TPE	45 / * 6530 / *	MPa psi	ISO 527-1/-2
Shore D Hardness	51 / *	-	ISO 868
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	No Break / No Break	kJ/m²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	No Break / No Break	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	167 / *	°C	ISO 11357-1/-3
Vicat Softening Temperature, 50°C/h 50N	156 / * 313 / *	°C °F	ISO 306
OTHER PROPERTIES			
Water Absorption	1.5 / *	%	Sim. to ISO 62
Humidity Absorption	0.7 / *	%	Sim. to ISO 62
Density	1030 / 1030 1.03 / 1.03	kg/m³ g/cm³	ISO 1183
%Bio-Based	62	-	ASTM D6866

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PEBAX®
RNEW® 55R53 SP 01

MAIN APPLICATIONS:

- Flexible injected parts
- Athletic foot wear components

PACKAGING:

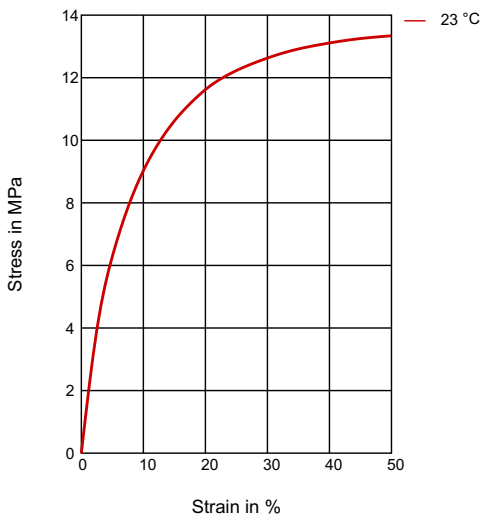
This grade is delivered dried in sealed packaging (20 and 25 kg bags) ready to be processed.

SHELF LIFE:

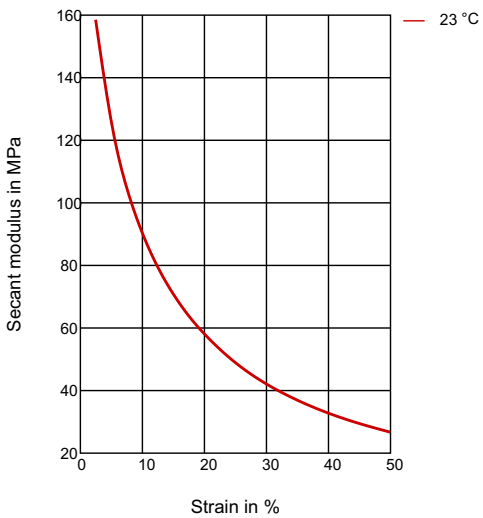
Two years from the delivery. For any use above this limit, please refer to our technical services.

DIAGRAMS

STRESS-STRAIN



SECANT MODULUS-STRAIN



Processing conditions (injection):

- Typical melt temperature (Min / Recommended / Max) : 200°C / 240°C / 270°C.
- Typical mold temperature : 25 – 60°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 65-75°C.

Processing conditions (extrusion):

- Typical melt temperature (Min / Recommended / Max): 210°C / 220°C / 230°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 4-8 hours at 65-75°C.

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PEBAX® RNEW® 55R53 SP 01

PROCESSING

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming

DELIVERY FORM

Pellets

SPECIAL CHARACTERISTICS

Bio-Based, Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

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