

PEBAX[®] RNEW[®] 72R53 SP 01

Polyether block **Pebax® Rnew® 72R53 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 is 90%** (calculated value, based on ASTM D6866).

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Molding Shrinkage, parallel	1.5 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.3 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	- / 560	MPa	ISO 527-1/-2
	- /	psi	
Yield stress	81200 - / 28	MPa	ISO 527-1/-2
	- / 4060	psi	
Yield strain	- / 28	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Strain at Break TPE	>300 / *	%	ISO 527-1/-2
Stress at Break TPE	55 / *	MPa	ISO 527-1/-2
	7980 / *	psi	
Shore D Hardness	65 / *	-	ISO 868
Charpy Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	- / 13	kJ/m ²	ISO 179/1eA
	- / 6.18	ftlb/in ²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	186 / *	°C	ISO 11357-1/-3
OTHER PROPERTIES			
Water Absorption	0.7 / *	%	Sim. to ISO 62
Humidity Absorption	0.8 / *	%	Sim. to ISO 62
Density	1030 / 1030	kg/m ³	ISO 1183
	1.03 / 1.03	g/cm ³	
%Bio-Based	90	-	ASTM D6866

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MAIN APPLICATIONS:

- Ski shoes
- Athletic foot wear components

PACKAGING:

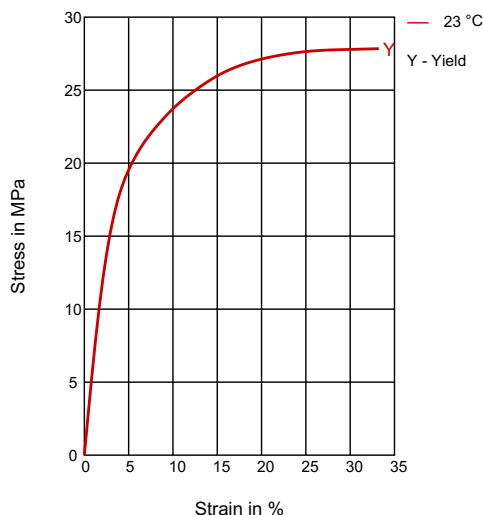
This grade is delivered dried in sealed packaging (20 kg bags) ready to be processed.

SHELF LIFE:

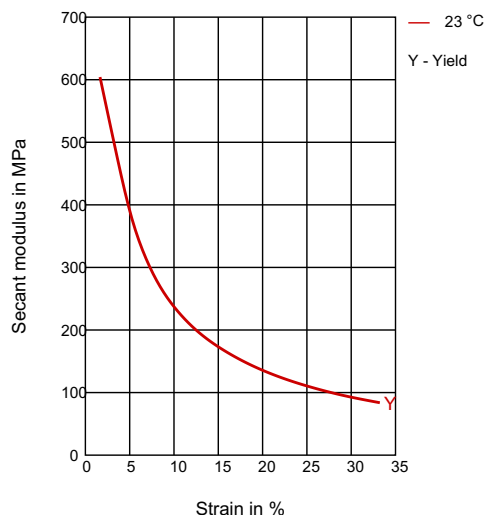
Two years from the delivery. For any use above this limit, please refer to our technical services.

DIAGRAMS

STRESS-STRAIN



SECANT MODULUS-STRAIN



Processing conditions (Injection) :

- Typical melt temperature (Min / Recommended / Max) : 230°C / 260°C / 290°C.
- Typical mold temperature : 25 – 60°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 5-7 hours at 70-80°C.

Processing conditions (extrusion) :

- Typical melt temperature (Min / Recommended / Max): 230°C / 260°C / 290°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 5-7 hours at 70-80°C.

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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	