

# PEBAX<sup>®</sup> RNEW<sup>®</sup> 72R53 SP 01

Polyether block **Pebax<sup>®</sup> Rnew<sup>®</sup> 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.

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 - / 81200	MPa psi	ISO 527-1/-2
Yield Stress	- / 28 - / 4060	MPa psi	ISO 527-1/-2
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 / * 7980 / *	MPa psi	ISO 527-1/-2
Shore D Hardness, after 15 s	65 / *	-	ISO 868
Charpy Impact Strength, +23°C	- / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / No Break	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	- / 13 - / 6.18	kJ/m <sup>2</sup> ftlb/in <sup>2</sup>	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	186 / *	°C	ISO 11357-1/-3
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	0.7 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	0.8 / *	%	ISO 62
Density	1030 / 1030 1.03 / 1.03	kg/m <sup>3</sup> g/cm <sup>3</sup>	ISO 1183

## MAIN APPLICATIONS:

- Ski shoes
- Athletic foot wear components

## PACKAGING:

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

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Source: automatically generated TDS from Material Database on 20-02-2024

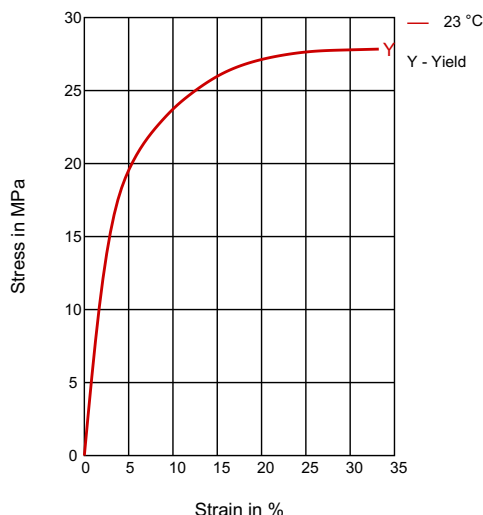
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## SHELF LIFE:

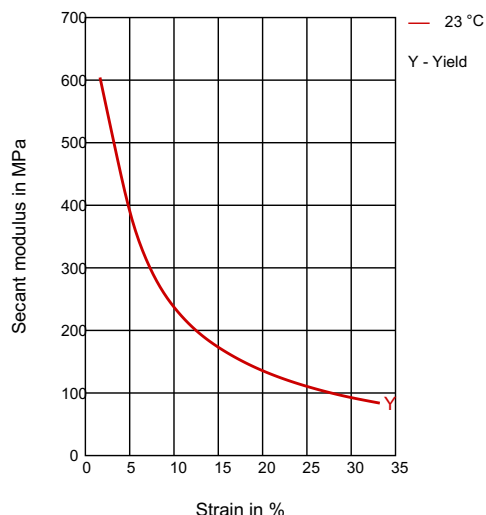
Two years from the delivery. For any use above this limit, please refer to our technical services.

## 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.

## 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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