

# PEBAX<sup>®</sup> RNEW<sup>®</sup> 70R53 SP 01

**Pebax® Rnew® 70R53 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
<b>RHEOLOGICAL PROPERTIES</b>			
Molding Shrinkage, parallel	1.3 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.2 / *	%	ISO 294-4, 2577
<b>MECHANICAL PROPERTIES</b>			
Tensile Modulus	- / 360 - / 52200	MPa psi	ISO 527-1/-2
Yield Stress	- / 24 - / 3480	MPa psi	ISO 527-1/-2
Yield Strain	- / 42	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Stress at 300% Elongation	57 / * 8270 / *	MPa psi	ISO 527-1/-2
Strain at Break TPE	>300 / *	%	ISO 527-1/-2
Shore D Hardness, after 15 s	62 / *	-	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	- / 15 - / 7.14	kJ/m <sup>2</sup> ftlb/in <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
Melting Temperature, 10°C/min	186 / *	°C	ISO 11357-1/-3
<b>OTHER PROPERTIES</b>			
Water Absorption, 23°C, immersion, equilibrium	1 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	0.7 / *	%	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 and 25 kg bags) ready to be processed.

Arkema France - A French "société anonyme", registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790 SDC/11-2018  
Source: automatically generated TDS from Material Database on 20-02-2024

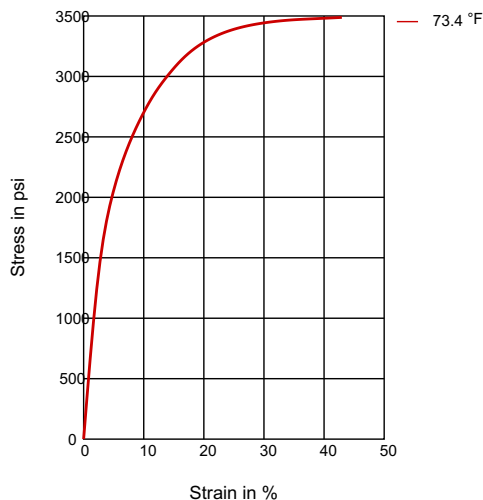
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## SHELF LIFE:

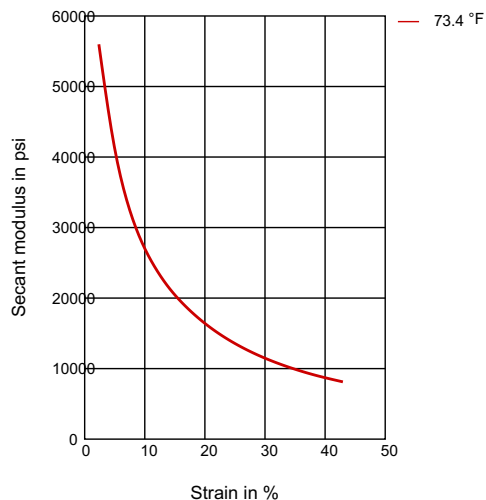
Two years from the delivery. For any use above this limit, please refer to our technical services.

## DIAGRAMS

### STRESS-STRAIN



### SECANT MODULUS-STRAIN



### Processing conditions:

- 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:

- Typical melt temperature (Min / Recommended / Max): 220°C / 235°C / 250°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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<b>PROCESSING</b>  Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming	Headquarters:  Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com  Arkema Inc. – High Performance Polymers  900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
<b>DELIVERY FORM</b>  Pellets	
<b>SPECIAL CHARACTERISTICS</b>  Bio-Based, Heat Stabilized, Light Stabilized	
<b>REGIONAL AVAILABILITY</b>  North America, Europe, Asia Pacific, South and Central America, Near East/Africa	

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