

# PEBAX<sup>®</sup>

## RNEW<sup>®</sup> 35R53 SP 01

Polyether block **Pebax<sup>®</sup> Rnew<sup>®</sup> 35R53 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 29%** (calculated value, based on ASTM D6866).

### MAIN CHARACTERISTICS

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
<b>RHEOLOGICAL PROPERTIES</b>			
<b>Molding Shrinkage, parallel</b>	0.6 / *	%	ISO 294-4, 2577
<b>Molding Shrinkage, normal</b>	0.6 / *	%	ISO 294-4, 2577
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile Modulus</b>	- / 40	MPa	ISO 527-1/-2
<b>Stress at 50% Strain</b>	- / 5	MPa	ISO 527-1/-2
<b>Strain at Break</b>	- / >50	%	ISO 527-1/-2
<b>Strain at Break TPE</b>	>300 / *	%	ISO 527-1/-2
<b>Stress at Break TPE</b>	30 / *	MPa	ISO 527-1/-2
<b>Shore D Hardness</b>	25 / *	-	ISO 868
<b>Charpy Impact Strength, +23°C</b>	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
<b>Charpy Impact Strength, -30°C</b>	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
<b>Charpy Notched Impact Strength, +23°C</b>	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Charpy Notched Impact Strength, -30°C</b>	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
<b>Melting Temperature, 10°C/min</b>	135 / *	°C	ISO 11357-1/-3
<b>Vicat Softening Temperature, 50°C/h 50N</b>	81 / *	°C	ISO 306
<b>OTHER PROPERTIES</b>			
<b>Water Absorption</b>	1.3 / *	%	Sim. to ISO 62
<b>Humidity Absorption</b>	0.5 / *	%	Sim. to ISO 62
<b>Density</b>	1020 / 1020	kg/m <sup>3</sup>	ISO 1183
<b>%Bio-Based</b>	29	-	ASTM D6866

### MAIN APPLICATIONS:

- Flexible injected parts

### PACKAGING:

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

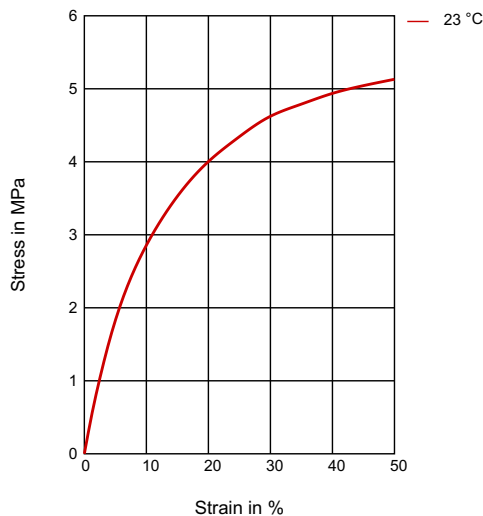
### SHELF LIFE:

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

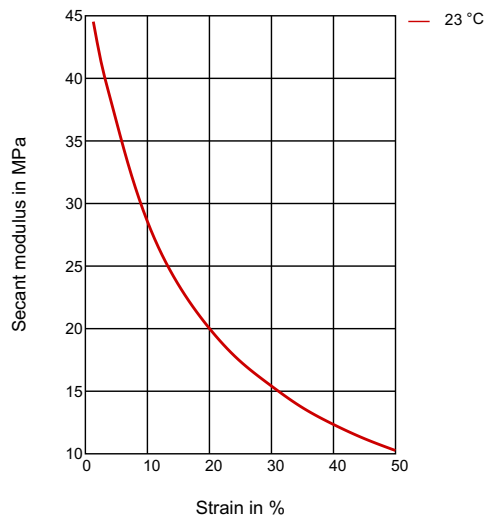
Two years from the delivery. For any use above this limit, please refer to our technical services.

### DIAGRAMS

#### STRESS-STRAIN



#### SECANT MODULUS-STRAIN



Processing conditions (injection molding):

- Typical melt temperature (Min / Recommended / Max) : 180°C / 210°C / 260°C.
- Typical mold temperature : 10 – 30°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 55-65°C.

**Processing conditions (extrusion):**

- Typical melt temperature (Min / Recommended / Max): 190°C / 205°C / 220°C.
- Drying time and temperature (only necessary for bags opened for more than two hours): 4-8 hours at 55-65°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

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

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