

Product Texts

Polyether block amide **Pebax® 4033 SP 01 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SP grade has been developed to be heat and UV resistant.

Main applications:

- Flexible injected parts
- High performance power transmission belts
- Silent gears
- PA6 film modifier

Packaging:

This grade is delivered dried in sealed packaging (25 kg bags and 550 rigid containers) ready to be processed.

Shelf Life:

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

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	73 / 71	MPa	ISO 527
^[C] Stress at 50% strain	9 / 9	MPa	ISO 527
^[C] Strain at break	>50 / >50	%	ISO 527
^[C] Stress at 10% elongation	5 / *	MPa	ISO 527
^[C] Stress at 100% elongation	11 / *	MPa	ISO 527
^[C] Stress at break TPE	40 / *	MPa	ISO 527
^[C] Strain at break TPE	>300 / *	%	ISO 527
^[C] Compression set at 23 °C, 24h	32 / *	%	ISO 815
^[C] Tear strength	85 / *	kN/m	ISO 34-1
^[C] Abrasion resistance	48 / *	mm ³	ISO 4649
^[C] Shore A hardness	89 / *	-	ISO 7619-1
^[C] Shore D hardness	35 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	160 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	-65 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	52 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	195 / *	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	7 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	5 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	710 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	604 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	2.6E11 / -	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 3E12	Ohm	IEC 62631-3-2
^[C] Electric strength	39 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	* / 600	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	1.2 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.5 / *	%	Sim. to ISO 62
^[C] Density	1000 / 1000	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	60 - 70	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	200 - 270	°C	-
Mold temperature	10 - 30	°C	-

Characteristics

Processing

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

Special Characteristics

Platable, Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Delivery form

Pellets

Regional Availability

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

Other text information

Injection molding

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 200°C / 240°C / 270°C.
- Typical mold temperature : 10 – 30°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours) : 4-6 hours at 60-70°C.

Other extrusion

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 210°C / 220°C / 230°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours) : 4-6 hours at 60-70°C.