

Pebax® 5533 SA 01 MED

TPA

Pebax® 5533 SA 01 MED resin

Polyether block amide **Pebax® 5533 SA 01 MED resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This grade offers the highest quality and it is specially designed to meet the stringent requirements of the medical applications such as minimally invasive devices.

Pebax® 5533 SA 01 MED resin also offers an excellent combination of properties such as: kink resistance, low friction coefficient and superior dynamic response.

Upon request, letters regarding USP Class VI compliance can be provided.

Main applications:

- Tubings like angiography and angioplasty catheters.
- Flexible injected parts.

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.

Rheological properties

	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	1.2 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577

Mechanical properties

	dry / cond	Unit	Test Standard
Tensile Modulus	170 / 165	MPa	ISO 527-1/-2
Yield stress	12 / 12	MPa	ISO 527-1/-2
Yield strain	25 / 25	%	ISO 527-1/-2
Nominal strain at break	>50 / >50	%	ISO 527-1/-2
Charpy impact strength, +23°C	- / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	- / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	- / N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	- / N	kJ/m ²	ISO 179/1eA

Thermal properties

	dry / cond	Unit	Test Standard
Melting temperature, 10°C/min	159 / *	°C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 50N	142 / *	°C	ISO 306

Other properties

	dry / cond	Unit	Test Standard
Water absorption	1.2 / *	%	Sim. to ISO 62
Humidity absorption	0.6 / *	%	Sim. to ISO 62
Density	1010 / 1010	kg/m ³	ISO 1183

Test specimen production

Value	Unit	Test Standard
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Injection Molding, melt temperature	240	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 10724

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Shore D hardness, 15s	50 / *	-	ISO 7619-1

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 200°C / 240°C / 270°C.
- Typical mold temperature : 25 – 60°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 65-75°C.

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 210°C / 220°C / 230°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 65-75°C.

Characteristics

Processing

Injection Molding, Other Extrusion

Delivery form

Pellets

Special Characteristics

Light stabilized or stable to light, Heat stabilized or stable to heat

Regional Availability

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