

Pebax® Clear 400

TPA

Pebax® Clear 400 resin

Pebax® Clear 400 resin combines high transparency level with the unique performance of Pebax®, thermoplastic elastomer made of flexible polyether and rigid polyamide.

Main applications:

- Sport shoes.
- Ski shoes.

Packaging:

This grade is delivered dried in sealed packaging (25 kg bags).

Shelf life:

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

Rheological properties

	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.6 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical properties

	dry / cond	Unit	Test Standard
Tensile Modulus	340 / 300	MPa	ISO 527-1/-2
Yield stress	- / 12	MPa	ISO 527-1/-2
Yield strain	- / 13	%	ISO 527-1/-2
Nominal strain at break	- / >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

Other properties

	dry / cond	Unit	Test Standard
Density	1020 / -	kg/m ³	ISO 1183

Test specimen production

	Value	Unit	Test Standard
Injection Molding, melt temperature	240	°C	ISO 294
Injection Molding, mold temperature	23	°C	ISO 10724

Mechanical properties (TPE)

	dry / cond	Unit	Test Standard
Shore D hardness, 1.5s	56 / *	-	ISO 7619-1

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Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 210°C / 240°C / 270°C.
- Typical mold temperature (mirror polish to get the optimum transparency) : <30°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 3-4 hours at 60°C.

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Transparent

Regional Availability

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