

# PEBAX® 5533 SP 01

Polyether block amide Pebax® 5533 SP 01 is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SP grade has been developed to be heat and UV resistant.

## MAIN CHARACTERISTICS

Property	Typical Value	Unit	Test Method
Density	1.01	g/cm <sup>3</sup>	ISO 1183
Water Absorption at Equilibrium At 20°C and 50 % R.H.	0.6	%	ISO 62
Water Absorption At 23°C and 24 h in water	1.2	%	
Melting Point	159	°C	ISO 11357
Vicat Point Under 1 daN	142	°C	ISO 306
Shrinkage (after 24 h, 4 mm, mold at 40°C) // ⊥	1.2 1.4	% %	Internal method
Hardness (*) Instantaneous After 15 s	54 50	Shore D Shore D	
Tensile Test (*) Stress at Break Strain at Break	52 >450	MPa %	ISO 527
Flexural Modulus (*)	170	MPa	ISO 178
Charpy Impact (*) Unnotched 23°C Unnotched -30°C V-notched 23°C V-notched -30°C	No break No break No break No break	kJ/m <sup>2</sup> kJ/m <sup>2</sup> kJ/m <sup>2</sup> kJ/m <sup>2</sup>	ISO 179

(\*) Samples conditioned 15 days at 23°C - 50 % R.H.

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## MAIN APPLICATIONS

- Athletic foot wear components.
- Ski shoes.
- High performance power transmission belts.

## PROCESSING CONDITIONS

Conditions	Typical values
<b>Extrusion</b> Melt Temperature (Min / Recommended / Max)	<b>210°C / 220°C / 230°C</b>
<b>Injection</b> Melt Temperature (Min / Recommended / Max)	<b>200°C / 240°C / 270°C</b>
<b>Mold</b> Temperature	<b>25 – 60°C</b>
<b>Drying (only necessary for bags opened for more than two hours)</b> Time Temperature	<b>4 - 6 hours</b> <b>65 - 75°C</b>

## PACKAGING

This grade is delivered dried in sealed packaging (20 and 25 kg bags and 550 kg rigid containers) ready to be processed.

## SHELF LIFE

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

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See Safety Data Sheet for Health & Safety Considerations.