

TECHNICAL DATA SHEET

PEBAX® 5533 SA 01

POLYETHER BLOCK AMIDE PELLET

PEBAX® 5533 SA 01 is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SA grade offers the highest quality. It is used in sport and consumer applications, especially when food contact compliance is requested.

DESIGNATION

PEBA

MAIN APPLICATIONS

- Footwear - Outsole/Components
- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Film Extrusion
- Injection Molding
- Tube Extrusion

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Shrinkage, Parallel (t+24h)	0.8 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.0 %	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 50	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	- / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break	ISO 179 1eU
Nominal strain at break, 23°C (73°F), 50 mm/min	> 450 / > 450 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	25 / 25 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	12 / 12 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	170 / 161 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	No Break / No Break	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 170 MPa	ISO 178
Stress at break, 23°C (73°F), 50 mm/min	- / 52 MPa	ISO 527-1/-2
Abrasion resistance	47 / - mm ³	ISO 4649

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditioned.

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	66 °C	ISO 306
Melting temperature, 10°C/min	159 °C	ISO 11357-1/-3

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OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.6 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.2 %	ISO 62
Specific gravity, 23°C (73°F)	1.01 g/cm ³	ISO 1183-1

PACKAGING

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 20 kg / 44 lb bags

SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 210°C / 240°C / 270°C (410°F / 430°F / 520°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 65-75°C (150-165°F) / 4-6 hours

REGIONAL AVAILABILITY

Asia Pacific, Europe, Latin America and the Caribbean, Middle East, Northern America

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