

TECHNICAL DATA SHEET

PEBAX® 5533 SN 70 BLACK

POLYETHER BLOCK AMIDE PELLET

PEBAX® 5533 SN 70 BLACK is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. This black colored grade offers the highest quality and electrostatic discharge (ESD) performance. It is used in sport and consumer applications, especially when conductivity is required.

TYPE

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	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 250°C / 5 kg (482°F / 11 lb)	5	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 310	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	305 / 298	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	31 / 36	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	18 / 17	MPa	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	- / 29	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50	%	ISO 527-1/-2
Hardness, Shore D, 15 s	- / 60		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
Charpy notched impact strength, 23°C (73°F)	No Break / No Break		ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 18	kJ/m2	ISO 179 1eA

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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	159	°C	ISO 11357-1/-3

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ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 5500	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 1.1E+5	Ohm.m	IEC 62631-3-1

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.5	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.2	%	ISO 62
Specific gravity, 23°C (73°F)	1.09	g/cm ³	ISO 1183-1

PACKAGING

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

SPECIAL CHARACTERISTICS

- Electrostatic discharge (ESD)

REGIONAL AVAILABILITY

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

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DIAGRAMS

