

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.

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
Shrinkage, Parallel (t+24h)	0.8	%	ISO 294-4
Shrinkage, Normal (t+24h)	1	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	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
Hardness, Shore D, Instantaneous	- / 54		ISO 868
Compression set	43 / -	%	ISO 815
Abrasion resistance	47 / -	mm ³	ISO 4649

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

PEBAX® 5533 SA 01

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	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

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Volumic (transversal) resistivity, 23°C (73°F)	- / 3.2E+11	Ohm.m	IEC 62631-3-1
Surface resistivity, 23°C (73°F)	- / 3.0E+12	Ohm/sq	IEC 62631-3-2
Comparative tracking index, 23°C (73°F)	- / 600		IEC 60112
Relative permittivity, 100Hz	- / 9		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 5		IEC 62631-2-1
Dissipation factor, 100Hz	1110 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	1020 / -	E-4	IEC 62631-2-1
Dielectric Strength, 23°C (73°F)	- / 38.5	kV/mm	IEC 60243-1

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COND: Conditionned.

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	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
Density, 23°C (73°F)	1.01	g/cm³	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

REGIONAL AVAILABILITY

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

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