PEBAX® MED

TECHNICAL DATA SHEET

PEBAX® 4533 SA 01 MED

POLYETHER BLOCK AMIDE PELLET

PEBAX® 4533 SA 01 MED is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. This grade offers the highest quality and is approved in medical applications. Upon request, letters regarding USP Class VI compliance can be provided.

TYPE

PEBA

MAIN APPLICATIONS

- Health - Consumable - Others
- Health - Consumable - Catheters
- Other Medical

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

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

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Shrinkage, Parallel (t+24h)	0.6	%	ISO 294-4
Shrinkage, Normal (t+24h)	1.1	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 86	MPa	ISO 178
Tensile modulus, 23°C (73°F)	88 / 81	MPa	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F)	- / 9	MPa	ISO 527-1/-2
Stress at break, 23°C (73°F)	- / 42	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	> 550 / > 550	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	No break / No break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No break / 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)	No break / No break		ISO 179 1eA
Hardness, shore A, Instantaneous	- / 92		ISO 868
Hardness, shore A, 15 s	- / 90		ISO 868
Hardness, shore D, Instantaneous	- / 46		ISO 868
Hardness, shore D, 15 s	- / 41		ISO 868
Compression set	37 / -	%	ISO 815

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

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	147	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	-55	°C	ISO 11357-1/-2

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 3.0E+12	ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.6E+11	ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600		IEC 60112
Relative permittivity, 100Hz	- / 9		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 6		IEC 62631-2-1
Dissipation factor, 100Hz	2090 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	1120 / -	E-4	IEC 62631-2-1
Dielectric Strength, 23°C (73,4°F)	- / 43	kV/mm	IEC 60243-1

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Cond: Conditionned.

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Humidity absorption, At equilibrium at 23°C (73°F) / 50%HR	0.4	%	ISO 62
Water absorption, At equilibrium at 23°C (73°F) / Water immersion	1.2	%	ISO 62
Density, 23°C (73°F)	1.01	g/cm³	ISO 1183-1

PACKAGING

Available packaging:
- 25 kg / 55 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: 10-30°C (50-90°F)
- Drying time and temperature: 60-70°C (140-160°F) / 4-8 hours

REGIONAL AVAILABILITY

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

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