RILSAMID® MED

TECHNICAL DATA SHEET

RILSAMID® AESNO MED

POLYAMIDE 12 PELLET

RILSAMID® AESNO MED is a polyamide 12 resin. This natural grade is designed for tube extrusion and is approved in medical applications.

Designation : ISO 16396 - PA12, EG, C22-010

TYPE

PA12

MAIN APPLICATIONS

- Health - Reusable - Others
- Health - Consumable - Others
- Health - Consumable - Catheters

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Sheet Extrusion
- Tube Extrusion

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	8	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 1230	MPa	ISO 178
Tensile modulus, 23°C (73°F)	1500 / 1440	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	50 / 43	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	5 / 5	%	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	> 50 / > 50	%	ISO 527-1/-2
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)	- / 11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 6	kJ/m2	ISO 179 1eA
Stress at break, 23°C (73°F)	- / 47	MPa	ISO 527-1/-2

* 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
Vicat softening temperature, 50N at 50°C/h	142	°C	ISO 306
Heat deflection temperature, 0.45 MPa	135	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	55	°C	ISO 75-1/-2
Melting temperature, 10°C/min	180	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 1.0E+14	ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+12	ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600		IEC 60112
Dielectric Strength, 23°C (73,4°F)	- / 30	kV/mm	IEC 60243-1

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

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, At equilibrium at 23°C (73°F) / Water immersion	1.6	%	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: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

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