RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® MA 4411 BLACK

POLYAMIDE 12 PELLET

RILSAMID® MA 4411 BLACK is a polyamide 12 compound. This plasticized and impact-modified grade is designed for tube extrusion. It is a market standard to produce automotive fuel lines.

TYPE

PA12-IP

MAIN APPLICATIONS

- auto - diesel lines
- auto - gasoline lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	14	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F)	- / 470	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	- / 25	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	- / 23	%	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	- / > 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)	- / No break		ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 6	kJ/m2	ISO 179 1eA
Hardness, shore D, 15 s	- / 63		ISO 868
Stress at break, 23°C (73°F)	- / 54	MPa	ISO 527-1/-2

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

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	175	°C	ISO 11357-1/-3

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OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.03	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: 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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