RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® AESN BLACK P401 TL

POLYAMIDE 12 PELLET

RILSAMID® AESN BLACK P401 TL is a polyamide 12 compound. This plasticized an impact-modified grade is designed for tube extrusion. It is a market standard to produce air brake tubing (HIPHL) lines.

Designation : ISO 16396 - PA12-IP, EG1HL, C22-004

TYPE

PA12-IP

MAIN APPLICATIONS

- heavy truck - air brake 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)	13	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 330	MPa	ISO 178
Tensile modulus, 23°C (73°F)	- / 360	MPa	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F)	- / 24	MPa	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 / 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)	46 / No break	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	4 / 8	kJ/m2	ISO 179 1eA
Stress at break, 23°C (73°F)	- / 44	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	174	°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
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.2	%	ISO 62

PACKAGING

Available packaging:
- 20 kg / 44 lb bags
- 454 kg / 1000 lb rigid containers

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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