

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

DESIGNATION

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	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	13 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	- / 360 MPa	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F), 50 mm/min	- / 24 MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 330 MPa	ISO 178
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 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	/ 8 kJ/m ²	ISO 179 1eA

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	174 °C	ISO 11357-1/-3

RILSAMID® AESN BLACK P401 TL

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.03 g/cm ³	ISO 1183-1
Water absorption, 23°C (73°F), immersion, equilibrium	1.2 %	ISO 62

PACKAGING

This grade is delivered dried in sealed packaging ready to be processed. 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

Headquarter: Arkema France
420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790

ARKEMA