

TECHNICAL DATA SHEET

RILSAMID® AESN BLACK P201 TL

POLYAMIDE 12 PELLET

RILSAMID® AESN BLACK P201 TL is a polyamide 12 compound. This plasticized and impact-modified grade is designed for tube extrusion. It is a market standard to produce air brake tubing (PHLY) & automotive cooling lines.

Designation : ISO 16396 - PA12-IP, EG1HL, C22-007

TYPE

PA12-IP

MAIN APPLICATIONS

- Auto - Water Cooling Circuit
- Heavy Truck - Air Brake Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer

RHEOLOGICAL PROPERTIES

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

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	580 / 580	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 30	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 22	%	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50	%	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 450-600	MPa	ISO 178
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 / No Break		ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 7	kJ/m2	ISO 179 1eA
Hardness, Shore D, 15 s	- / 64		ISO 868

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

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	176	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.01	g/cm ³	ISO 1183-1

PACKAGING

Available packaging:

- 20 kg / 44 lb bags
- 25 kg / 55 lb bags
- 454 kg / 1000 lb rigid containers
- 800 kg / 1760 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