

TECHNICAL DATA SHEET

RILSAMID® AESN BLACK P110 TL

POLYAMIDE 12 PELLET

RILSAMID® AESN BLACK P110 TL is a polyamide 12 compound. This impact-modified grade is designed for tube extrusion and has improved hydrolysis resistance. It is a market standard to produce automotive cooling & selective catalyst reduction (SCR) lines.

Designation : ISO 16396 - PA12-L, EG1HL, C24-010

TYPE

PA12-L

MAIN APPLICATIONS

- Auto - Water Cooling Circuit
- Auto - SCR Lines & Tanks

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 275°C / 5 kg (527°F / 11 lb)	0.4	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	1120 / 1000	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 31	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	18 / 18	%	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)	- / 1016	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)	- / 75	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 18	kJ/m2	ISO 179 1eA

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

RILSAMID® AESN BLACK P110 TL

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	176	°C	ISO 11357-1/-3
Burning behavior, minimum thickness 1.5 mm	HB		IEC 60695-11-10
Burning behavior, minimum thickness 3.0 mm	HB		IEC 60695-11-10
Yellow card available	YES		

OTHER PROPERTIES

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