

## TECHNICAL DATA SHEET

# RILSAMID® AESN BLACK P40 TL

## POLYAMIDE 12 PELLET

RILSAMID® AESN BLACK P40 TL is a polyamide 12 compound. This plasticized grade is designed for tube extrusion, including air brake tubing (PHL).

**Designation :** ISO 16396 - PA12-P, EG1HL, C22-004

### TYPE

PA12-P

### MAIN APPLICATIONS

- Downstream - Gas Station Piping
- Auto - In Tank & Fuel Venting Lines

### 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), 235°C / 5 kg (455°F / 11 lb)	10	cm <sup>3</sup> /10min	ISO 1133

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	445 / 445	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 27	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 27	%	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)	- / 395	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)	- / 5	kJ/m <sup>2</sup>	ISO 179 1eA
Hardness, Shore D, 15 s	- / 62		ISO 868

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

## THERMAL PROPERTIES

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

# RILSAMID® AESN BLACK P40 TL

## OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.03	g/cm <sup>3</sup>	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