RILSAN®

TECHNICAL DATA SHEET

RILSAN® BESN BLACK P40 TL

POLYAMIDE 11 PELLET

RILSAN® BESN BLACK P40 TL is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This plasticized grade is designed for tube extrusion, including air brake tubing (PHL)

Designation : ISO 16396 - PA11-P, EG1HL, C22-003

DESIGNATION

PA11-P

MAIN APPLICATIONS

- Auto - Gasoline Lines
- Auto - Diesel Lines
- Auto - Water Cooling Circuit
- Auto - In Tank & Fuel Venting Lines
- Auto - Vacuum & Blow By Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	350 / 350 MPa	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)	- / 318 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	- / 61	ISO 868

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	182 °C	ISO 11357-1/-3
Heat deflection temperature, 0.45 MPa	130 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	45 °C	ISO 75-1/-2

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.04 g/cm³	ISO 1183-1
Water absorption, 23°C (73°F), immersion, equilibrium	1.6 %	ISO 62

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PACKAGING

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

SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

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