

TECHNICAL DATA SHEET

RILSAN® BESN BLACK P20 TL

POLYAMIDE 11 PELLET

RILSAN® BESN BLACK P20 TL is a polyamide 11 compound. It is manufactured from a renewable and sustainable source (castor oil). This plasticized grade is designed for tube extrusion, it's a market reference in the automotive fluid transfer line applications.

Designation : ISO 16396 - PA11-P, EG1HL, C22-005

DESIGNATION

PA11-P

MAIN APPLICATIONS

- Auto - Gasoline Lines
- Auto - Diesel Lines
- Auto - Water Cooling Circuit
- Auto - CNG-LPG-LNG Lines & Tanks
- Auto - SCR Lines & Tanks
- Auto - Vacuum & Blow By Lines
- Heavy Truck - Air Brake Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	580 / 510 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)	- / 490 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)	- / 70 kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10 kJ/m2	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	182 °C	ISO 11357-1/-3
Heat deflection temperature, 0.45 MPa	135 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	47 °C	ISO 75-1/-2

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OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium	1.8 %	ISO 62
Specific gravity, 23°C (73°F)	1.04 g/cm ³	ISO 1183-1

PACKAGING

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

- 25 kg / 55 lb bags
- 550 kg 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

SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

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

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