RILSAN®

TECHNICAL DATA SHEET

RILSAN® BESN BLACK P213 TL

POLYAMIDE 11 PELLET

RILSAN® BESN BLACK P213 TL is a polyamide 11 extrusion grade produced from a renewable & sustainable source (castor oil). This plasticized and impact-modified grade is specially designed to be used as external layer of multi-layer automotive fuel line applications.

Designation : ISO 16396 - PA11-IP, EG1HL, C18-010

DESIGNATION

PA11-IP

MAIN APPLICATIONS

- Auto - Gasoline 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	950 / 750 MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	34 / 32 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	27 / 30 %	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F), 50 mm/min	32 / 31 MPa	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	36 / 40 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)	890 / 690 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 / 85 kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	15 / 17 kJ/m2	ISO 179 1eA

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	186 °C	ISO 11357-1/-3

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OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.01 g/cm³	ISO 1183-1

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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