

TECHNICAL DATA SHEET

RILSAN® BESN BLACK TL

POLYAMIDE 11 PELLET

RILSAN® BESN BLACK TL is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This grade is designed for tube extrusion.

**Designation :** ISO 16396 - PA11, EG1HL, C22-010

TYPE

PA11

MAIN APPLICATIONS

- Hoses & Tubes
  - Industry - Distribution
  - Auto - Gasoline Lines
  - Auto - Others Extrusion
  - Auto - Metal Tube Coating

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
  - Sheet Extrusion
  - Tube Extrusion

ADDITIVES

- Heat Stabilized
  - Light Stabilized

MECHANICAL PROPERTIES

| PROPERTIES                                      | DRY / COND VALUE* | UNIT  | TEST STANDARD |
|-------------------------------------------------|-------------------|-------|---------------|
| 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   |
| Nominal strain at break, 23°C (73°F), 50 mm/min | - / > 50          | %     | ISO 527-1/-2  |
| Yield strain, 23°C (73°F), 50 mm/min            | - / 5             | %     | ISO 527-1/-2  |
| Yield stress, 23°C (73°F), 50 mm/min            | 41 / 41           | MPa   | ISO 527-1/-2  |
| Tensile modulus, 23°C (73°F), 1 mm/min          | 1420 / 1420       | MPa   | ISO 527-1/-2  |
| Charpy notched impact strength, 23°C (73°F)     | - / 10            | kJ/m2 | ISO 179 1eA   |
| Charpy notched impact strength, -30°C (-22°F)   | - / 12            | kJ/m2 | ISO 179 1eA   |
| Flexural modulus, 23°C (73°F)                   | - / 1280          | MPa   | ISO 178       |

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

THERMAL PROPERTIES

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

OTHER PROPERTIES

| PROPERTIES                                            | VALUE | UNIT  | TEST STANDARD |
|-------------------------------------------------------|-------|-------|---------------|
| Water absorption, 23°C (73°F), immersion, equilibrium | 1.9   | %     | ISO 62        |
| Specific gravity, 23°C (73°F)                         | 1.02  | g/cm³ | ISO 1183-1    |

# RILSAN® BESN BLACK TL

## PACKAGING

Available packaging:

- 20 kg / 44 lb bags
- 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