

## TECHNICAL DATA SHEET

# RILSAN® BESN BLACK P213 TL

## POLYAMIDE 11 PELLET

RILSAN® BESN BLACK P213 CTL 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-I, EG1HLN, C22-010

### 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

プロパティ	DRY / COND VALUE*	テスト基準
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/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	15 / 17 kJ/m <sup>2</sup>	ISO 179 1eA

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

## THERMAL PROPERTIES

プロパティ	価値	テスト基準
Melting temperature, 10°C/min	186 °C	ISO 11357-1/-3

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## OTHER PROPERTIES

プロパティ	価値	テスト基準
Specific gravity, 23°C (73°F)	1.01 g/cm <sup>3</sup>	ISO 1183-1

## 包装

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

- 25 kg / 55 lb bags

## 賞味期限

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:

- 典型的な熔融温度 (最小 / 推奨 / 最大) - 射出成形: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- 典型的な金型温度 - 射出成形: 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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