

TECHNICAL DATA SHEET

RILSAN® BESN BLACK P002 CTL

POLYAMIDE 11 PELLET

RILSAN® BESN BLACK P002 CTL is a polyamide 11 extrusion grade produced from a renewable & sustainable source (castor oil). This impact-modified grade is specially designed for low extractible & conductive multi-layers automotive fuel line applications.

Designation : ISO 16396 - PA 11-I, CDx, EG1HL, C18-020

TYPE

PA11-I

MAIN APPLICATIONS

- Auto Battery Cooling
- Auto - Gasoline Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	1900 / 1800	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	47 / 45	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	15 / 17	%	ISO 527-1/-2
Stress at 50% strain, 23°C (73°F), 50 mm/min	- / 43	MPa	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	40 / 39	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)	1750 / 1600	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)	6 / 9	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	8 / 9	kJ/m2	ISO 179 1eA

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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	189	°C	ISO 11357-1/-3
Heat deflection temperature, 0.45 MPa	154	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	55	°C	ISO 75-1/-2

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ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 4.0E+4	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 1.0E+3	Ohm.m	IEC 62631-3-1

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.16	g/cm³	ISO 1183-1

PACKAGING

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
- Electrostatic discharge (ESD)
- Low washout

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