

TECHNICAL DATA SHEET

RILSAN® HT CESV BLACK P010 TL

POLYPHTALAMIDE PELLET

RILSAN® HT CESV BLACK P010 TL is polyphthalamide compound. It is partially produced from a renewable & sustainable source (castor oil). This flexible grade with outstanding thermal & chemical resistance (incl. unique water coolant resistance) is typically used to replace metal or rubber parts in very demanding automotive fluid transfer lines.

Designation : ISO 16396 - PA10T/X-I, EG1HL, C16-010

TYPE

PA10T/X-I

MAIN APPLICATIONS

- Auto - Water Cooling Circuit
- Auto - Transmission Oil Cooling Circuit
- Auto - Blow Molded Air Intake
- Auto - SCR Lines & Tanks
- Auto - Vacuum & Blow By Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Blow molding
- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 300°C / 5 kg (572°F / 11 lb)	1.9	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	1050 / 1040	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	6.2 / 6.6	%	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)	- / 987	MPa	ISO 178
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
Charpy notched impact strength, 23°C (73°F)	- / 84	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 16	kJ/m2	ISO 179 1eA
Hardness, Shore D, 15 s	- / 66		ISO 868

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

RILSAN® HT CESV BLACK P010 TL

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	82	°C	ISO 11357-1/-2
Heat deflection temperature, 0.45 MPa	82	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	66	°C	ISO 75-1/-2
Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Bio-based carbon content, Measured	48	%	ASTM D6866
Specific gravity, 23°C (73°F)	1.05	g/cm ³	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: 270°C / 290°C / 310°C (520°F / 555°F / 590°F)
- Typical mold temperature - Injection molding: 90-110°C (195-230°F)
- Drying time and temperature: 100-110°C (210-230°F) / 4-8 hours

SPECIAL CHARACTERISTICS

- Bio-based

DIAGRAMS

