

TECHNICAL DATA SHEET

RILSAN® HT CZM 30 LASER TLD

POLYPHTALAMIDE PELLET

RILSAN® HT CZM 30 LASER TLD is a polyphthalamide. It is partially produced from a renewable & sustainable source (castor oil). This black but laser transparent glass-reinforced grade is formulated and designed for injection molding in very demanding applications (high temperature or chemical resistance). It is specially used as a substitute to polyamide 12 for fittings & quick-connector body as it can be injected in same mold (same shrinkage).

Designation : ISO 11396 - PA10T/X, GF30, M1G1HL, C16-090

TYPE

PA10T/X-GF30

MAIN APPLICATIONS

- Auto - Fluid Connectors

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Release agent

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 300°C / 2.16 kg (572°F / 4.4 lb)	15	cm³/10min	ISO 1133
Shrinkage, Parallel (t+24h)	0.3	%	ISO 294-4
Shrinkage, Normal (t+24h)	1.0	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	8700 / 8700	MPa	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	150 / 150	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	9.1 / -	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	7.4 / -	kJ/m2	ISO 179 1eA
Charpy unnotched impact strength, 23°C (73°F)	57 / -	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	54 / -	kJ/m2	ISO 179 1eU

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

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Heat deflection temperature, 0.45 MPa	240	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	220	°C	ISO 75-1/-2
Melting temperature, 10°C/min	255	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium	1.1	%	ISO 62
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.2	%	ISO 62
Specific gravity, 23°C (73°F)	1.3	g/cm ³	ISO 1183-1
Bio-based carbon content, Measured	68	%	ASTM D6866

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
- Laser transparent (weldable)