

## TECHNICAL DATA SHEET

# RILSAN® HT CSR 13

## POLYPHTALAMIDE PELLET

RILSAN® HT CSR 13 is polyphthalamide compound. It is partially produced from a renewable & sustainable source (castor oil). This black reinforced grade is designed for injection molding & is used to produce high temperature and high chemical resistance automotive fittings & quick connectors, the incorporation of carbon fiber leading to a product with same rigidity as a 30% glass fiber reinforced grade & electrostatic discharge (ESD) performance for conductive parts.

**Designation :** ISO 16396 - PA10T/X, CF13, M1G1HL, C16-080

### TYPE

PA10T/X-CF15

### 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), 275°C / 2.16 kg (527°F / 4.4 lb) | 12    | cm³/10min | ISO 1133      |
| Shrinkage, Parallel (t+24h)                                   | 0.3   | %         | ISO 294-4     |
| Shrinkage, Normal (t+24h)                                     | 0.6   | %         | ISO 294-4     |

## MECHANICAL PROPERTIES

| PROPERTIES                                      | DRY / COND VALUE* | UNIT  | TEST STANDARD |
|-------------------------------------------------|-------------------|-------|---------------|
| Charpy unnotched impact strength, 23°C (73°F)   | - / 40            | kJ/m2 | ISO 179 1eU   |
| Charpy unnotched impact strength, -30°C (-22°F) | - / 32            | kJ/m2 | ISO 179 1eU   |
| Tensile modulus, 23°C (73°F), 1 mm/min          | 7600 / 7600       | MPa   | ISO 527-1/-2  |
| Charpy notched impact strength, 23°C (73°F)     | - / 5             | kJ/m2 | ISO 179 1eA   |
| Charpy notched impact strength, -30°C (-22°F)   | - / 4             | kJ/m2 | ISO 179 1eA   |

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

## THERMAL PROPERTIES

| PROPERTIES                            | VALUE | UNIT | TEST STANDARD  |
|---------------------------------------|-------|------|----------------|
| Heat deflection temperature, 0.45 MPa | 235   | °C   | ISO 75-1/-2    |
| Heat deflection temperature, 1.8 MPa  | 195   | °C   | ISO 75-1/-2    |
| Melting temperature, 10°C/min         | 255   | °C   | ISO 11357-1/-3 |

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## OTHER PROPERTIES

| PROPERTIES                         | VALUE | UNIT              | TEST STANDARD |
|------------------------------------|-------|-------------------|---------------|
| Bio-based carbon content, Measured | 52    | %                 | ASTM D6866    |
| Specific gravity, 23°C (73°F)      | 1.15  | g/cm <sup>3</sup> | 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
- Electrostatic discharge (ESD)