

Nylene® 5130 HR BK

TECHNICAL DATASHEET

TDS Ref # 847 Reviewed: 1/7/2015

DESCRIPTION

- Nylene 5130 HR BK is a 30% glass fiber-reinforced nylon 6/6 featuring high tensile strength and stiffness.
- Product is specially formulated to improve resistance to glycol, such as automotive engine cooling fluid.
- Excellent thermal and mechanical properties to increase the lifetime of parts in constant contact with under the hood chemicals.

| PROPERTIES | TEST METHOD | UNIT | VALUE |
|---|-----------------|--|-------------------|
| PHYSICAL PROPERTIES | | | |
| Density | ISO 1183/A | g/cm ³ (lb/in ³) | 1.37 (86) |
| Water Absorption | ISO 62 | % | 0.80 |
| MECHANICAL PROPERTIES | | | |
| Charpy Notched Impact (23°C) | ISO 179/1eU | kJ/m ² (ft-lb/in ²) | 11 (5.23) |
| Charpy Unnotched Impact (23°C) | ISO 179/1eU | kJ/m ² (ft-lb/in ²) | 80 (38.1) |
| Charpy unnotched impact strength (after | ISO 179/1eU | KJ/m ² (ft-lb/in ²) | 10 (4.76) |
| Charpy unnotched impact strength (after | ISO 179/1eU | kJ/m ² (ft-lb/in ²) | 42 (20) |
| Elongation @ Break | ISO 527 Type 1A | % | 3 |
| Flexural Maximum Stress | D790 | MPa (psi) | 290 (42,100) |
| | ISO 178 | MPa (psi) | 280 (40,600) |
| Flexural Modulus | D790 | MPa (psi) | 9000 (1,305,000) |
| | ISO 178 | MPa (psi) | 9000 (1,305,000) |
| Notched Izod @ 23°C | ISO 180/1A | kJ/m ² (lb/ft ²) | 10 (4.76) |
| Notched Izod Impact | D256 | J/m (ft lb/in) | 115 (2.15) |
| Tensile Modulus | ISO 527 Type 1A | MPa (psi) | 10000 (1,450,000) |
| Tensile Strength @ Break | ISO 527 Type 1A | MPa (psi) | 190 (27,600) |
| THERMAL PROPERTIES | | | |
| Melt Point | ISO 11357 | °C (°F) | 263 (505) |

NOTES

- Testing conducted on dry-as-molded specimens at 73°F
- D.A.M. = Dry as Molded
- See Processing Considerations on next page

PROCESSING CONSIDERATIONS: PA 6/6 GLASS REINFORCED > 15%

CHARACTERISTICS

Resin Type: Nylon 6/6

Product Characteristics:

Glass Reinforced, Internally Lubricated, Black

INJECTION MOLDING PROCESSING

Prime Grade

FEATURES

- Good Chemical Resistance
- High Heat Resistance
- High Strength and Stiffness
- Good Glycol Resistance

MARKETS USED

- Automotive Applications

APPLICATIONS

- Coolant Pipe and Fittings
- Hydraulic Engine Mounts
- Overflow Reservoirs
- Radiator End Tanks
- Thermostat Housings

DISCLAIMER

The data set forth herein has been carefully compiled by Nylene in our laboratories. Values shown are typical properties and not specifications. Since processing variables will affect properties, the reproducibility of our data in a customer's testing facility is not guaranteed. There is no warranty of any kind, either expressed or implied, applicable to the use of this information, and the user assumes all risk and liability in connection therewith.



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