



Edgetek™ X ET9800-0030 RS Natural Polyetheretherketone

Key Characteristics

Product Description

The Edgetek® Engineering Thermoplastic Compounds portfolio covers a broad range of standard and custom-formulated high performance materials. This portfolio includes high-temperature materials for elevated service temperature environments, high-modulus / structural materials for load-bearing and high-strength applications and flame-retardant products. These compounds are based on select engineering thermoplastic resins that are compounded with reinforcing additives such as carbon fiber, glass fiber and glass beads.

General

| | | | |
|------------------------|--|--|-----------------|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight | | |
| Features | • High Heat Resistance | • Specialty Grade | |
| Uses | • Automotive Applications • Consumer Applications | • High Temperature Applications • Industrial Applications | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

Technical Properties ¹

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|--|-------------------------|--------------------|-------------|
| Specific Gravity | 1.54 | 1.54 | ASTM D792 |
| Molding Shrinkage - Flow | 2.0E-3 to 3.0E-3 in/in | 0.20 to 0.30 % | ASTM D955 |
| Water Absorption (24 hr, 0.125 in (3.18 mm)) | 0.10 % | 0.10 % | ASTM D570 |
| Mechanical | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Modulus ² | 1.70E+6 psi | 11700 MPa | ASTM D638 |
| Tensile Strength ² (Yield) | 24000 psi | 165 MPa | ASTM D638 |
| Tensile Elongation ² (Break) | 2.0 to 3.0 % | 2.0 to 3.0 % | ASTM D638 |
| Flexural Modulus | 1.50E+6 psi | 10300 MPa | ASTM D790 |
| Flexural Strength | 36000 psi | 248 MPa | ASTM D790 |
| Impact | Typical Value (English) | Typical Value (SI) | Test Method |
| Notched Izod Impact | | | ASTM D256A |
| 73°F (23°C), 0.125 in (3.18 mm), Injection Molded | 2.1 ft-lb/in | 110 J/m | |
| Thermal | Typical Value (English) | Typical Value (SI) | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm) | 590 °F | 310 °C | |

Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Processing (Melt) Temp | 730 to 750 °F | 388 to 399 °C |

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

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