Edgetek™ UR2-40CF/000 BLACK

Polyurethane

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	• Carbon Fiber, 40% Filler by Weight		
Features	• Balanced Stiffness/Toughness	• Electrically Conductive	
Uses	• Consumer Applications	• Industrial Applications	• Medical/Healthcare Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.40	1.40	ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 9.0E-4 in/in	0.050 to 0.090 %	ASTM D955
Molding Shrinkage - Across Flow	9.0E-4 to 3.0E-3 in/in	0.090 to 0.30 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	1.35E+6 psi	9310 MPa	ASTM D638
Tensile Strength (Yield)	15000 psi	103 MPa	ASTM D638
Tensile Strength (Break)	14300 psi	98.6 MPa	ASTM D638
Tensile Elongation (Break)	7.0 to 11 %	7.0 to 11 %	ASTM D638
Flexural Modulus [3]	1.15E+6 psi	7930 MPa	ASTM D790
Flexural Strength [3]	19000 psi	131 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact (Injection Molded)	5.0 ft·lb/in	270 J/m	ASTM D256
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Surface Resistivity	1.0E+2 to 1.0E+4 ohms	1.0E+2 to 1.0E+4 ohms	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+4 ohms·cm	1.0E+2 to 1.0E+4 ohms·cm	ASTM D257

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	420 to 460 °F	216 to 238 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] 0.20 in/min (5.1 mm/min)

[3] 0.050 in/min (1.3 mm/min)