

Mitsubishi Chemical Advanced Materials Nylatron® GF30 Nylon Type 66, 30% Glass-Reinforced Black Color (ASTM Product Data Sheet)
Categories: Polymer; Thermoplastic; Nylon (Polyamide PA); Nylon 66 (PA66); Nylon 66, 30% Glass Fiber Filled

Material Notes: Quadrant Engineering Plastic Products is now Mitsubishi Chemical Advanced Materials.

Physical Properties	Metric	English	Comments
Specific Gravity	1.29 g/cc	1.29 g/cc	ASTM D792
Water Absorption	0.30 %	0.30 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	5.5 %	5.5 %	Immersion; ASTM D570(2)

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	75	75	ASTM D785
Tensile Strength	93.1 MPa	13500 psi	ASTM D638
Tensile Strength at 65°C (150°F)	41.4 MPa	6000 psi	ASTM D638
Elongation at Break	5.0 %	5.0 %	ASTM D638
Tensile Modulus	4.65 GPa	675 ksi	ASTM D638
Flexural Strength	145 MPa	21000 psi	ASTM D790
Flexural Modulus	4.48 GPa	650 ksi	ASTM D790
Compressive Strength	124 MPa	18000 psi	10% Def.; ASTM D695
Compressive Modulus	4.14 GPa	600 ksi	ASTM D695

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	1.00e+13 ohm	1.00e+13 ohm	EOS/ESD S11.11
Dielectric Strength	13.8 kV/mm	350 kV/in	Short Term; ASTM D149

Thermal Properties	Metric	English	Comments
CTE, linear	36.0 µm/m-°C @Temperature -40.0 - 149 °C	20.0 µin/in-°F @Temperature -40.0 - 300 °F	ASTM E831
Thermal Conductivity	0.245 W/m-K	1.70 BTU-in/hr-ft²-°F	ASTM F433
Melting Point	260 °C	500 °F	Crystalline, Peak; ASTM D3418
Maximum Service Temperature, Air	104 °C	220 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	204 °C	400 °F	ASTM D648
Flammability, UL94	V-2 @Thickness 3.17 mm	V-2 @Thickness 0.125 in	Estimated Rating

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Unacceptable	Unacceptable	
Acids, Weak	Limited	Limited	
Alcohols	Limited	Limited	
Alkalies, Strong (pH 11-14)	Unacceptable	Unacceptable	
Alkalies, Weak	Limited	Limited	
Chlorinated Solvents	Limited	Limited	
Conductive / Static Dissipative	No	No	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Acceptable	Acceptable	

Descriptive Properties			
Machinability		4	1-10, 1=Easier to Machine



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