

Envalior Akulon M-1016

33% Glass Reinforced, Heat Stabilized
Former DSM Engineering Plastics product line is now with Envalior.

Physical Properties	Metric	English	Comments
Density	1.38 g/cc	0.0499 lb/in ³	ISO 1183
Water Absorption	8.0 %	8.0 %	Sim. ISO 62
Moisture Absorption	2.10 %	2.10 %	Humidity; Sim. ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	175 MPa	25400 psi	ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Tensile Modulus	9.50 GPa	1380 ksi	ISO 527-1/-2
Flexural Strength	260 MPa	37700 psi	ISO 178
Flexural Modulus	9.00 GPa	1310 ksi	ISO 178
Izod Impact, Notched (ISO)	9.50 kJ/m ² @Temperature -30.0 °C	4.52 ft-lb/in ² @Temperature -22.0 °F	ISO 180/1A
	14.5 kJ/m ² @Temperature 23.0 °C	6.90 ft-lb/in ² @Temperature 73.4 °F	ISO 180/1A
Charpy Impact Unnotched	7.00 J/cm ² @Temperature -30.0 °C	33.3 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	8.00 J/cm ² @Temperature 23.0 °C	38.1 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm ² @Temperature -30.0 °C	4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA

	1.20 J/cm ² @Temperature 23.0 °C	5.71 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	IEC 60250
Dielectric Constant	3.5 @Frequency 1e+6 Hz	3.5 @Frequency 1e+6 Hz	IEC 60250
	3.8 @Frequency 100 Hz	3.8 @Frequency 100 Hz	IEC 60250
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
Dissipation Factor	0.0090 @Frequency 100 Hz	0.0090 @Frequency 100 Hz	IEC 60250
	0.016 @Frequency 1e+6 Hz	0.016 @Frequency 1e+6 Hz	IEC 60250
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 µm/m-°C	11.1 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
Melting Point	260 °C	500 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	260 °C	500 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	246 °C	475 °F	ISO 75-1/-2