

Envalior Akulon® K222-D

Low Viscosity
Former DSM Engineering Plastics product line is now with Envalior.

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	9.0 %	9.0 %	Sim. ISO 62
Moisture Absorption	2.50 %	2.50 %	Humidity; Sim. ISO 62
Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	95.0 MPa	13800 psi	ISO 527-1/-2
Elongation at Break	15 %	15 %	Nominal; ISO 527-1/-2
Elongation at Yield	3.2 %	3.2 %	ISO 527-1/-2
Tensile Modulus	3.80 GPa	551 ksi	ISO 527-1/-2
Flexural Strength	100 MPa	14500 psi	ISO 178
Flexural Modulus	2.60 GPa	377 ksi	ISO 178
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.400 J/cm ² @Temperature -30.0 °C	1.90 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	0.800 J/cm ² @Temperature 23.0 °C	3.81 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60250
Dielectric Constant	3.0 @Frequency 1e+6 Hz	3.0 @Frequency 1e+6 Hz	IEC 60250
	3.2 @Frequency 100 Hz	3.2 @Frequency 100 Hz	IEC 60250
Dielectric Strength	25.0 kV/mm	635 kV/in	IEC 60243-1
Dissipation Factor	0.0050 @Frequency 100 Hz	0.0050 @Frequency 100 Hz	IEC 60250
	0.015 @Frequency 1e+6 Hz	0.015 @Frequency 1e+6 Hz	IEC 60250
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 µm/m-°C	50.0 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	90.0 µm/m-°C	50.0 µin/in-°F	ISO 11359-1/-2
Melting Point	220 °C	428 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	150 °C	302 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °F	ISO 75-1/-2
Flammability, UL94	V-2 @Thickness 1.50 mm	V-2 @Thickness 0.0591 in	IEC 60695-11-10
	V-2 @Thickness 3.00 mm	V-2 @Thickness 0.118 in	IEC 60695-11-10
Oxygen Index	26 %	26 %	ISO 4589-1/-2