

BASF Ultraform® N2770 K POM

Description: Is a POM, injection-molding grade with improved wear characteristics for sliding elements.

Physical Properties	Metric	English	Comments
Bulk Density	0.650 - 0.900 g/cc	0.0235 - 0.0325 lb/in ³	
Density	1.42 g/cc	0.0513 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.20 %	0.20 %	23°C; 50% RH; ISO 62
Water Absorption at Saturation	0.80 %	0.80 %	ISO 62
Linear Mold Shrinkage, Flow	0.021 cm/cm	0.021 in/in	ISO 2577
Linear Mold Shrinkage, Transverse	0.021 cm/cm	0.021 in/in	ISO 2577
Melt Flow	10.65 g/10 min @Load 2.16 kg, Temperature 190 °C	10.65 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	140 MPa @Load 36.5 kg, Time 30.0 sec	20300 psi @Load 80.5 lb, Time 0.00833 hour	ISO 2039-1
Tensile Strength, Yield	63.0 MPa	9140 psi	50 mm/min; ISO 527-2
Elongation at Break	26 %	26 %	ISO 527-2
Elongation at Yield	8.5 %	8.5 %	ISO 527-2
Modulus of Elasticity	2.80 GPa	406 ksi	ISO 527-2
Charpy Impact Unnotched	15.0 J/cm ² @Temperature -30.0 °C	71.4 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	15.0 J/cm ² @Temperature 23.0 °C	71.4 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.350 J/cm ² @Temperature -30.0 °C	1.67 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	0.400 J/cm ² @Temperature 23.0 °C	1.90 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
Tensile Creep Modulus, 1000 hours	1400 MPa @Strain <=0.5 %	203000 psi @Strain <=0.5 %	ISO 899-1

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Constant	3.8 @Frequency 1e+6 Hz	3.8 @Frequency 1e+6 Hz	IEC 60250
	3.8 @Frequency 100 Hz	3.8 @Frequency 100 Hz	IEC 60250
Dielectric Strength	40.0 kV/mm	1020 kV/in	IEC 60243-1
Dissipation Factor	0.0010 @Frequency 100 Hz	0.0010 @Frequency 100 Hz	IEC 60250
	0.0050 @Frequency 1e+6 Hz	0.0050 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112
	600 V	600 V	Test solution B; IEC 60112