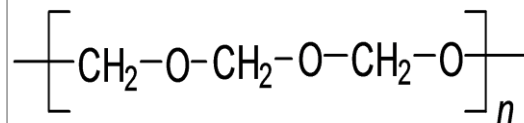


Polyacetal (POM-Molding Grade)

SPECIFICATIONS

Property	Spec	Value
Density	ISO 1182	1.42 g/cm ³
Hardness Rockwell Scale M Scale R	ISO 2039/2	92 120
Water Absorption Equilibrium 50% RH Immersion 24h Saturation, Immersed	ISO 62	0.3% 0.6% 1.4%
MECHANICAL		
Yield Stress	ISO 527	70 MPa
Yield Strain	ISO 527	17%
Strain at Break 50 mm/min	ISO 527	40%
Nominal Strain at Break	ISO 527	30%
Tensile Modulus	ISO 527	3100 MPa
Flexural Modulus	ISO 178	2900 MPa
THERMAL		
Deflection Temperature 0.45 MPa 1.80 MPa	ISO 75-1/-2	°C (°F) 158 (316) 94 (201)
Melting Temp 10°C/min	ISO 11357-1/-3	178 (352)
CLTE, Parallel -40 -23°C (-40 -73°F) 23 -55°C (73 -130°F) 55 - 100°C (130 -212°F)	ISO 11359-1/-2	E-4/C (E-4/F) 1.0(0.56) 1.1(0.61) 1.5(0.82)
CLTE, Normal -40 -23°C (-40 -73°F) 23 -55°C (73 -130°F) 55 - 100°C (130 -212°F)	ISO 11359-1/-2	E-4/C (E-4/F) 1.0(0.56) 1.1(0.61) 1.6(0.90)
Vicat Softening Temp 50N	ISO 306	155°C (310°F)



DESCRIPTION

MM65 is a POM material with hardness 92M and 120R, specially compounded for molding grade applications. Acetal or Polyoxymethylene (POM) belongs to the polyether family which contains carbon-oxygen-carbon (-C-O-C-) ether linkages in the polymer backbone. Acetal or POM refers to the polyether with only one carbon (methylene) in between ether linkages. To improve its low thermal stability for commercial use, POM has to be chemically modified by one of two means. The first is to modify the ends of polymer chains to yield the corresponding POM homopolymer (POM-H). The second method is to add 1%-2% ethylene oxide to the polymer chain that results in POM copolymer (POM-C). POM possesses a simple regular backbone, thus it is a highly crystalline polymer. This chemical and morphological structure leads to high mechanical strength, low moisture absorption, high dimensional stability, and good chemical resistance.