

## Technical Datasheet POM 500P

**1) Product Description:**

Delrin<sup>®</sup> 500P is a medium viscosity acetal homopolymer resin for injection molding. Delrin<sup>®</sup> 500P has improved processing thermal stability.

**2) Applications:**

Injection molding of industrial parts.

**3) Typical data:**

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE*
Resin Identification	ISO 1043		POM
Part Marking Code	ISO 11469		>POM<
Yield Stress	ISO 527	MPa (kpsi)	70 (10.1)
Yield Strain	ISO 527	%	17
Strain at Break 50mm/min	ISO 527	%	40
Nominal Strain at Break	ISO 527	%	30
Tensile Modulus	ISO 527	MPa (kpsi)	3100 (450)
Tensile Creep Modulus 1h 1000h	ISO 899	MPa (kpsi)	2800 (406) 1600 (232)
Flexural Modulus	ISO 178	MPa (kpsi)	2900 (420)
Flexural Stress @ 3.5% Strain	ISO 178	MPa (kpsi)	80 (11.06)
Notched Charpy Impact Strength -30°C (-22°F) 23°C (73°F)	ISO 179/1eA	kJ/m <sup>2</sup>	8 9
Unnotched Charpy Impact Strength -30°C (-22°F) 23°C (73°F)	ISO 179/1eU		220 300
Deflection Temperature 0.45MPa 1.80MPa	ISO 75-1/-2	°C	158 94
Melting Temperature 10°C/min	ISO 11357-1/-3	°C	178
CLTE, Parallel -40 - 23°C 23 - 55°C 55 - 100°C	ISO 11359-1/-2	E-4/C	1.0 1.1 1.5
CLTE, Normal -40 - 23°C 23 - 55°C 55 - 100°C	ISO 11359-1/-2	E-4/C	1.0 1.1 1.6
Vicat Softening Temperature 50N	ISO 306	°C	157
Melt Mass-Flow Rate 190°C, 2.16kg	ISO 1133	g/10 min	15
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1420 (1.42)
Hardness, Rockwell Scale M	ISO 2039/2		92

Scale R			120
Water Absorption Equilibrium 50%RH Immersion 24h Saturation, immersed	ISO 62, Similar to	%	0.3 0.6 1.4
Molding Shrinkage Normal, 2.0mm Parallel, 2.0mm	ISO 294-4	%	1.9 2.0

\* Typical values not to be construed as specifications.

