



Technical Datasheet: POM 500P

Product Description:

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

Applications:

Injection molding of industrial parts.

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	ISO 899	MPa (kpsi)	2800 (406)
1000h			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)	ISO 179/1eA	kJ/m ²	8
23°C (73°F)			9
Unnotched Charpy Impact Strength			
-30°C (-22°F)	ISO 179/1eU	kJ/m ²	220
23°C (73°F)			300
Deflection Temperature			
0.45Mpa	ISO 75-1/-2	°C	158
1.80Mpa			94

Melting Temperature 10°C/min	ISO 11357-1/-3	°C	178	
CLTE, Parallel	ISO 11359-1/-2	E-4/C		
-40 - 23°C				1.0
23 - 55°C				1.1
55 - 100°C			1.5	
CLTE, Normal	ISO 11359-1/-2	E-4/C		
-40 - 23°C				1.0
23 - 55°C				1.1
55 - 100°C			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 ³ (g/cm ³)	1420 (1.42)	
Hardness, Rockwell	ISO 2039/2			
Scale M				92
Scale R				120
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH				0.3
Immersion 24h				0.6
Saturation, immersed				1.4
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm				1.9
Parallel, 2.0mm				2.0

* Typical values not to be construed as specifications.