

## DELRIN® 150 Series Natural (TECAFORM® AD) - Stock Shapes (rods, plates, tubes)

### Chemical Designation

POM-H (Polyacetal (Homopolymer))

### Colour

white

### Density

1.41 g/cm<sup>3</sup>

### Main features

- good machinability
- high stiffness
- high fatigue strength
- high creep resistance
- good wear properties
- very good abrasion resistance

### Target Industries

- food processing
- food engineering
- automotive industry
- conveyor technology
- construction industry
- mechanical engineering
- electronics
- fixture construction
- gear manufacturing
- home appliances

### Mechanical properties

#### condition

#### value

#### test method

#### comment

Modulus of elasticity (tensile test)	@ 73 °F	350,000	psi	ASTM D 638
Tensile strength at yield		11,000	psi	ASTM D 638
Elongation at break (tensile test)	@ 73 °F	25	%	ASTM D 638
Flexural strength	@ 73 °F	14,000	psi	ASTM D 790
Modulus of elasticity (flexural test)	@ 73 °F	470,000	psi	ASTM D 790
Compression strength	@ 1% strain	3,600	psi	ASTM D 695
Compression strength	@ 10% strain	15,500	psi	ASTM D 695
Compression modulus		325,000	psi	ASTM D 695
Impact strength (Izod)	@ 73 °F	1.5	ft-lbs/in	-
Rockwell hardness	@ 73 °F M Scale (R Scale)	94 (120)		ASTM D 785
Shore hardness	D scale	84		ASTM D 2240
Coefficient of friction	Dynamic 40 psi, 50 fpm	.2		ASTM D 3702
Wear rate	40 psi, 50 fpm	55*10 <sup>-10</sup>	in <sup>3</sup> -min/ft-lbs-hr	ASTM D 3702

### Thermal properties

#### condition

#### value

#### test method

#### comment

Melting temperature		347	°F	ASTM D 2133	1)
Deflection temperature	@ 66 psi	336	°F	ASTM D 648	
Deflection temperature	@ 264 psi	257	°F	ASTM D 648	
Service temperature	Intermittent	300	°F	-	
Service temperature	Long Term	185	°F	-	
Thermal expansion (CLTE)		6.8*10 <sup>-5</sup>	in/in/°F	ASTM D 696	
Specific heat		0.35	BTU/lb-F°	-	

### Electrical properties

#### condition

#### value

#### test method

#### comment

volume resistance		> 10 <sup>15</sup>	Ω*cm	ASTM D 257
Dielectric strength		500	V/mil	ASTM D 149
Dissipation factor	@ 60 Hz, 73 °F	.005		ASTM D 150
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	3.7		ASTM D 150

### Other properties

#### condition

#### value

#### test method

#### comment

Moisture absorption	@ 24 hrs, 73 °F	.25	%	ASTM D 570	(1) 1.47mm injection mold
Moisture absorption	@ saturation, 73 °F	.90	%	ASTM D 570	
Flammability (UL94)	UL 94	HB		-	1)

→ Resin specification:

ASTM D6778-06 POM0111 superseding ASTM D4181-00 POM111

Shapes specification:

ASTM D6100-11 S-POM0111

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