

# Quadrant EPP Delrin® Acetal

Acetal (POM) Homopolymer  
Quadrant Engineering Plastic Products

Message:

Delrin® is a homopolymer acetal. Stocked in rod and plate, it offers slightly higher mechanical properties than Acetron GP Acetal, but may contain a low-density center, especially in larger cross-sections. Delrin is ideal for small diameter, thin-walled bushings that benefit from the additional strength and hardness of homopolymer acetal.  
Data provided by Quadrant Engineering Plastic Products from tests on stock shapes and parts produced by Quadrant EPP.

General Information			
Features	Alcohol Resistant		
	Good Strength		
	High Hardness		
	Homopolymer		
	Hydrocarbon Resistant		
	Low Density		
	Machinable		
Uses	Bushings		
Agency Ratings	FDA Unspecified Rating		
Forms	Disc		
	Rod		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.41	g/cm <sup>3</sup>	ASTM D792
Water Absorption			ASTM D570
24 hr	0.20	%	
Saturation	0.90	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	89		
R-Scale	122		
Durometer Hardness (Shore D)	86		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3100	MPa	ASTM D638
Tensile Strength (Ultimate)	75.8	MPa	ASTM D638
Tensile Elongation (Break)	30	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength (Yield)	89.6	MPa	ASTM D790
Compressive Modulus	3100	MPa	ASTM D695

Compressive Strength (10% Strain)	110	MPa	ASTM D695
Shear Strength	62.1	MPa	ASTM D732
Coefficient of Friction (vs. Steel - Static)	0.25		Internal Method
Wear Factor	400	10 <sup>-8</sup> mm <sup>3</sup> /N·m	ASTM D3702
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	53	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	121	°C	ASTM D648
Maximum Use Temperature - Long Term, Air	82	°C	
Limiting Pressure Velocity <sup>1</sup>	0.0946	MPa·m/s	Internal Method
Peak Crystallization Temperature (DSC)	175	°C	ASTM D3418
CLTE - Flow <sup>2</sup> (-40 to 149°C)	8.5E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.36	W/m/K	ASTM F433
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity <sup>3</sup>	> 1.0E+13	ohms	Internal Method
Dielectric Strength <sup>4</sup>	18	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.70		ASTM D150
Dissipation Factor (1 MHz)	5.0E-3		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm, Estimated Rating)	HB		UL 94
NOTE			
1.	4:1 safety factor		
2.	68°F		
3.	EOS/ESD S11.11		
4.	Method A (Short-Time)		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT