

## Ensinger DELRIN® AF DE588 Acetal Homopolymer, 20% PTFE filled (POM)

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Homopolymer, PTFE-Filled

### Material Notes:

DELRIN® AF DE588 is a 20% PTFE filled homopolymer acetal that is fully tested and certified for use by the United States Navy. The resin is manufactured by DuPont and is used extensively in a variety of applications primarily on submarines. This advanced acetal material uses a combination of PTFE fibers uniformly dispersed in Delrin acetal resin. The combination results in improved wear characteristics along with strength, toughness, dimensional stability and machinability. The profile also yields a material with superior load bearing capabilities, especially when operating at high speeds. Developed specifically for US Naval use Meets requirements for NAVSEA 5959311 rev C and NAVSEA 803-4384678 rev B and C Meets requirements per General dynamics Dwg. 4384678 rev C note 7 with Drn C2 All stock shapes are traceable to resin lot and batch DELRIN® DE588 is designed and approved specifically for naval applications and is suitable in a variety of uses such as bushings, bearings, seals, gaskets and valve seats. Information provided by Ensinger

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ensinger-DELIN-AF-DE588-Acetal-Homopolymer-20-PTFE-filled-POM.php](http://www.lookpolymers.com/polymer_Ensinger-DELIN-AF-DE588-Acetal-Homopolymer-20-PTFE-filled-POM.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.53 g/cc	1.53 g/cc	ASTM D792
Water Absorption	0.30 %	0.30 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	115	115	
Tensile Strength, Yield	42.1 MPa	6100 psi	ASTM D638
Elongation at Yield	20 %	20 %	ASTM D638
Tensile Modulus	2.21 GPa	320 ksi	ASTM D638
	2.50 GPa	363 ksi	injection molded samples; ASTM D638
Compressive Strength	14.5 MPa	2100 psi	ASTM D695
	@Strain 1.00 %	@Strain 1.00 %	
	75.8 MPa	11000 psi	ASTM D695
	@Strain 10.0 %	@Strain 10.0 %	
Izod Impact, Notched	0.587 J/cm	1.10 ft-lb/in	ASTM D256
Tensile Impact Strength	10.5 kJ/m <sup>2</sup>	5.00 ft-lb/in <sup>2</sup>	ASTM D1822

Thermal Properties	Metric	English	Comments
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Melting Point Thermal Properties	175 °C Metric	347 °F English	ASTM D3418 Comments
Maximum Service Temperature, Air	85.0 °C	185 °F	long term
	149 °C	300 °F	intermittent
Deflection Temperature at 0.46 MPa (66 psi)	168 °C	334 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	118 °C	244 °F	ASTM D648
Flammability, UL94	HB	HB	

## Contact Songhan Plastic Technology Co.,Ltd.

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