



MANUFACTURING CORPORATION

- Plastics Machining
- Spring Energized Seals
- Rotary Lip Seals

**Material Data Sheet**

Material: Tecaform™ HPV 13

Delrin® AF blend alternative

Tecaform™ HPV 13 is a brown homopolymer acetal with an internal PTFE lubricant. Its low coefficient of friction, excellent PV values, toughness, wear resistance and machinability make it an exceptional material for use in many industrial and military components with moving parts. Additionally, Tecaform™ HPV 13 has superior chemical resistance and flexural fatigue properties, as well as low moisture absorption associated with acetal materials. This material also offers no stick slip, low coefficient of friction and good dimensional stability. Tecaform™ HPV 13 also complies with FDA regulation 21CFR 177.2470 for use in contact with food up to 212°F except those containing 8% alcohol.

Mechanical Properties	ASTM Test Method	Value	Units
Density	D792	0.054	lbs/in <sup>3</sup>
Specific Gravity	D792	1.5	g/cc
Water Absorption @ 24 hours, 73°F	D570	0.11	%
@ Saturation, 73°F	D570		%
Tensile Strength, 73°F	D638	7,000	psi
Tensile Modulus	D639	3.4 x 10 <sup>5</sup>	psi
Elongation ( at break), 73°F	D638	10	%
Flexural Strength, 73°F	D790	12,500	psi
Flexural Modulus, 73°F	D790	3.5 x 10 <sup>5</sup>	psi
Compressive Strength	D695	0	psi
Izod Impact Strength, 73°F	D256	1	ft-lb/in of notch
Rockwell Hardness, 73°F	D785	R-118	M or R Scale
Shure Hardness			D Scale
Wear Factor Against Steel, 40 psi, 50 fpm	D3702	20 X 10 <sup>-10</sup>	in. <sup>3</sup> -min/ft.lbs.hr
Static Coefficient of Friction	D3702	0.07	
Dynamic Coefficient of Friction, 40 pcs, 50 fpm	D3702	0.12	
<b>Thermal Properties</b>			
Heat Deflection Temperature @ 66 psi	D648	334	°F
@ 264 psi	D648	244	°F
Coefficient of Linear Thermal Expansion	D696	5.1 X 10 <sup>-5</sup>	in/in./°F
Continuous Servicing Temperature, Intermittent			°F
Long Term	UL746B		°F
Specific Heat			BTU/lb -°F
Thermal Conductivity			
Melting Point	D2133	347	°F
Flammability	UL94		(mm)
<b>Electrical Properties</b>			
Surface Resistivity	D257		ohm/square
Volume Resistivity	D257		ohm - cm
Dielectric Strength	D149		Volts/mil
Dielectric Constant, 60 Hz, 73°F, 50% RH	D150		
Dissipation Factor, 60 HZ, 73°F	D150		

237 Glider Circle, Corona, CA 92880 Phone: (951) 272-9395 Fax: (951) 272-9397

\*The values shown in these and the following charts are typical, average properties. Actual values may differ due to variations in resin formulations and processing methods. These values are obtained from sources believed to be reliable, including the resin manufactures, converters and other published sources. However, they should not be used for specification or design purposes. The above information is provided by Ensinger Hyde.