



# Hydlar ZF (Ensinger-Hyde)

Reinforced Nylon / Kevlar composite

HYDLAR Z	Test Units	Injection Molded & Extruded		Molded Only	Extruded & Molded
		Nylon 6/6	Nylon 6/6	Nylon 6/6	HYDLAR ZF 6/6
Properties					
Fiber	—	None	Glass	Glass	Nylon/Kevlar
Content	%	—0—	13%	33%	N/A
Tensile Strength	PSI x 10 <sup>3</sup>	12.0	15.0	27.0	17.300
Tensile Modulus	PSI	470,000	—	—	802,000
Elongation	%	60.0	2.0	3.0	4.0
Flexural Strength	PSI x 10 <sup>3</sup>	—	—	—	23.0
Flexural Modulus	PSI x 10 <sup>6</sup>	.41	.7	1.3	.9
Notched Izod Impact	Ft.-lb./in.	1.0	.9	2.0	2.7
Compressive Strength	PSI x 10 <sup>3</sup>	13.0	—	24.0	19.3
Test Distortion Temp @ 264 psi	°F	194A	470	480	470
Continuous Use Temp	°F	210	210	230	300
Coefficient of Linear Thermal Expansion	in / in / °F	4.0 x 10 <sup>-5</sup>	1.5 x 10 <sup>-5</sup>	1.3 x 10 <sup>-5</sup>	1.6 x 10 <sup>-5</sup>
Specific Gravity	gr / cm <sup>3</sup>	1.14	1.22	1.38	1.16
Immersion 73 F Water AB 24 hrs	%	1.2	—	.7	.8
Saturation 73 F Water AB 24 hrs	%	8.5	7.1	5.4	6.3
Wear Factor***	—	867- 1105	N/A	424	128 to 79
Galling of Mating Test Surface	—	Minor	—	Severe	None

Depending on PV \*DuPont Zytel Property Charts except wear \*\*RTP Test Data except wear \*\*\*ASTM Thrust Washer Test: PV = 2,500 P= 250PSI V = 10 f.p.m.