

HYDLAR® Z

HYDLAR is an engineered thermoplastic composite that is reinforced with Kevlar® Aramid fibers. It is an excellent material for wear and abrasion applications.

HYDLAR'S TOP FEATURES OFFER:

- Superior Wear Resistance - Virtually No Abrasion to Counter Surfaces
- High Use Temperature - Greatly Improved Mechanical Properties
- Outstanding Machinability - High P.V. Limit

HYDLAR possesses a combination of physical properties that cannot be found in any other commercially available product. Using HYDLAR composites, design engineers have created a new family of superior wear and abrasion resistant thermoplastics to choose from.

HYDLAR makes it possible to achieve low abrasiveness without sacrificing low wear rates. Ordinary thermoplastic composites achieve low wear rates by using a reinforcement that adds to their strength and/or stiffness. But most, however, also show correspondingly high abrasiveness to counter surface. HYDLAR thermoplastic composites are the exception. HYDLAR's tough, strong reinforcing material makes the end product extremely wear resistant without excessive galling to mating wear surface. In addition HYDLAR improves mechanical properties and increases surface temperature capabilities.

HYDLAR Z

(NYLON/KEVLAR COMPOSITE)

Provides increased wear and lubricity.

HYDLAR ZM

NYLON/KEVLAR/MOLYBDENUM DISULPHIDE

COMPOSITE) Offers improved surface hardness, increased wear and lubricity.

HYDLAR ZT

(NYLON/KEVLAR/TEFLON COMPOSITE)

Property	ASTM Test Method	Units	HYDLAR® Z
Physical			
Fiber			Nylon/Kevlar
Specific Gravity	D792	g/cc	1.16
Water Absorption 24 hrs Immersion 73 °F Saturation 73 °F	D570 D570	% %	.8 6.3
Mechanical			
Tensile Strength	D638	psi	16,000
Tensile Modulus	D639	psi	1,300,000
Elongation	D638	%	4.0
Flexural Strength	D790	psi	23,000
Flexural Modulus	D790	psi	900,000
Notched Izod Impact	D256	psi	2.7
Compressive Strength	D695	psi	19,300
Wear Factor, ASTM Thrust Washer Test: PV=2,500, P=250psi, V=10 fpm			128 to 79
Thermal			
Heat Deflection Temperature, @ 264 psi	D648	°F	470
Continuous Use Temperature		°F	300
Coefficient of Linear Thermal Expansion	D696	in/in/°F	1.6 x 10 ⁻⁵

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.