MODERN plastics
"Setting the Standards in Plastics Distribution"™
678 Howard Ave :: Bridgeport, CT 06605

HYDLAR
High-Strength Rods and Slabs

Engineered Thermoplastic Composite Reinforced with Kevlar® Aramid Fiber. The Ultimate Stock Shape for Wear and Abrasion Resistant Parts.

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

EXCLUSIVE WEAR AND ABRASION RESISTANT PROPERTIES

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.

THE COST-EFFECTIVE ANSWER

Now it's 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 (see below). In addition HYDLAR improves mechanical properties and increases surface temperature capabilities.

THREE GRADES AVAILABLE

HYDLAR Z
(NYLON/KEVLAR COMPOSITE)

HYDLAR ZT
NYLON/KEVLAR/TEFLON COMPOSITE)
Provides increased wear and lubricity.

HYDLAR ZM
NYLON/KEVLAR/MOLYBDENUM DISULPHIDE COMPOSITE) Offers improved surface hardness, increased wear and lubricity.

YOUR PARTNER

A. L. Hyde's applications development team can be a valuable partner in your search for new and better materials to use in high-temperature, heavy-wear situations. We would be happy to apply our knowledge to your product and market needs. Contact your local Hyde distributor or call Hyde at **1-800-234-4933**.

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HYDLAR Z		Injection Molded & Extruded			Molded Only	Extruded & Molded
Properties	Test Units	Nylon* 6/6	Nylon*** 6	Nylon* 6/6	Nylon* 6/6	HYDLAR Z 6/6
Fiber	—	None	Glass	Glass	Glass	Nyon/Kevlar
Content	%	–0–	10%	13%	33%	N/A
Tensile Strength	PSI x 10^3	12.0	14.0	15.0	27.0	16.0
Tensile Modulus	PSI x 10^6	—	.9	—	—	1.3
Elongation	%	60.0	3.2	2.0	3.0	4.0
Flexural Strength	PSI x 10^3	—	18.0	—	—	23.0
Flexural Modulus	PSI x 10^6	.41	.6	.7	1.3	.9
Notched Izod Impact	Ft.-lb./in.	1.0	1.1	.9	2.0	2.7
Compressive Strength	PSI x 10^3	13.0	14.5	—	24.0	19.3
Test Distortion Temp @ 264 PSI	°F	194A	370	470	480	470
Continuous Use Temp‡	°F	210	200	210	230	300
Coefficient of LInear Thermal Expansion	in / in / °F	4.0 x 10^{-5}	—	1.5 x 10^{-5}	1.3 x 10^{-5}	1.6 x 10^{-5}
Specific Gravity Water Absorption 24 hrs	gr / cm^3	1.14	1.21	1.22	1.38	1.16
Immersion 73° F	%	1.2	—	—	.7	.8
Saturation 73° F	%	8.5	—	7.1	5.4	6.3
Wear Factor***	—	867 to 1105	149-Melting of Nylon 6	N/A	424	128 to 79
Galling of Mating Test Surface	—	Minor	Heavy	—	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.