

Polymer Coated LIGHTLINE®

LFH/IH

Description

Polymer coated LIGHTLINE is a composite of fiberglass and epoxy coated with a thermoplastic polymer coating, developed as a non-metallic strength element for fiber optic cables. Polymer coated LIGHTLINE provides an improved surface smoothness for operator friendly handling and prevents fiber buildup during extrusion. Ethylene Acrylic Acid coating improves adhesion of various overjacket materials to rod.

Typical LFH/IH LIGHTLINE Physical Properties

Fiber Type	E-Glass
Resin Type	Epoxy
Approximate Fiber Percentage, by weight	80%
Approximate Resin Percentage, by weight	20%
Coefficient of Thermal Expansion (CTE)	$5.9 \times 10^{-6} \text{ C}^\circ$
Standard Diameter Tolerances	+/- 5%
Thermal Resistance: The coiled sample is wound to 100 X diameter for 5 days without any failure of the glass fibers.	100°C

Typical LFH/IH LIGHTLINE Mechanical Properties

Tensile Strength (Base Rod)	>1.40 GPa
Modulus of Elasticity (Base Rod)	>50 GPa
Flexural Modulus (Base Rod)	>48 GPa
Elongation at Break	>2.5%
Minimum Bend Diameter	40 X Diameter

PLEASE SEE REVERSE SIDE FOR ADDITIONAL INFORMATION



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LFH/IH LIGHTLINE Specifications

Product Code	Nominal Diameter		Elasticity		Tensile Strength	
	mm	in.	N	lbs.	N	lbs.
LFH/IH 100	1.05	0.041	409	92	1023	230
LFH/IH 150	1.55	0.061	874	196	2184	491
LFH/IH 160	1.65	0.065	1023	230	2558	575
LFH/IH 170	1.75	0.069	1174	264	2956	665
LFH/IH 170	1.75	0.069	1131	264	2956	665
LFH/IH 175	1.80	0.071	1228	276	3069	690
LFH/IH 180	1.85	0.073	1272	286	3180	715
LFH/IH 190	1.95	0.077	1432	322	3581	805
LFH/IH 200	2.05	0.081	1575	354	3938	885
LFH/IH 205	2.10	0.083	1637	368	4092	920
LFH/IH 230	2.35	0.093	2046	460	5175	1163
LFH/IH 250	2.55	0.100	2473	556	6116	1375
LFH/IH 260	2.65	0.104	2642	594	6605	1485
LFH/IH 270	2.75	0.108	2865	644	7161	1610
LFH/IH 300	3.05	0.120	3478	782	8696	1955
LFH/IH 320	3.25	0.128	3892	875	9732	2188
LFH/IH 330	3.35	0.132	4297	966	10742	2415
LFH/IH 350	3.55	0.140	4706	1058	11765	2645
LFH/IH 400	4.05	0.159	6143	1381	15357	3453
LFH/IH 450	4.55	0.179	7780	1749	19007	4273

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