



PLI-MOOR®

8 STRAND PLAITED NYLON

TYPICAL PROPERTIES				
SIZE		Approx. Wt/100'	Min. New Rope Breaking Force	Working Load Limits** RANGE LBS — 1/12 - 1/5
DIA	CIRC			
3/8"	1 1/8"	3.6 lbs.	3,330 lbs.	278 lbs - 660 lbs
1/2"	1 1/2"	6.2 lbs.	5,760 lbs.	480 lbs - 1152 lbs
5/8"	2"	10.2 lbs.	9,360 lbs.	780 lbs - 1872 lbs
3/4"	2 1/4"	14.1 lbs.	13,500 lbs.	1125 lbs - 2700 lbs
7/8"	2-3/4"	19.5 lbs.	18,900 lbs.	1575 lbs - 3780 lbs
1"	3"	25.0 lbs.	22,500 lbs.	1875 lbs - 4500 lbs
1 1/2"	4 1/2"	52.9 lbs.	49,500 lbs.	4125 lbs - 9900 lbs
1-5/8"	5"	65.4 lbs.	58,400 lbs.	5450 lbs - 13080 lbs
1-3/4"	5-1/2"	82.0 lbs.	68,200 lbs.	6017 lbs - 14440 lbs
2"	6"	95.0 lbs.	85,500 lbs.	7125 lbs - 17100 lbs
2-1/4"	7"	129.0 lbs.	108,500 lbs.	9375 lbs - 22500 lbs
2-1/2"	7-1/2"	150.0 lbs.	132,300 lbs.	10275 lbs - 24660 lbs
2-5/8"	8"	167.0 lbs.	145,500 lbs.	12375 lbs - 29700 lbs
2-3/4"	8-1/2"	189.0 lbs.	172,000 lbs.	13500 lbs - 32400 lbs
3"	9"	214.0 lbs.	187,000 lbs.	15000 lbs - 33000 lbs

PLI-MOOR® 8 STRAND PLAITED ROPE

Nylon Fiber Characteristics

Wet Strength compared to Dry Strength: 85-90% Specific Gravity: 1.14 Ability to Float: No Water absorption of individual fibers: 8.0-12.0%

Elongation: Typical percent of rope elongation at 20% Breaking Load: 20-25%
Typical percent of rope elongation at 75% Breaking Load: 40-42%

Chemical Resistance Effect of Acids: Decomposed by strong mineral acids; resistant to weak acids
Effect of Alkalis: Little or none
Effect of Organic Solvents: Resistant, soluble in some phenolic compounds and in 90% formic acid.

Effect of Temperature on dry rope: High Temp Working Limit: 300°F Low Temp Working Limit: -70°F Melts at: 480°F

** Working Load Limits Caution

Because of the wide range of rope use, rope condition, exposure to several factors affecting rope behavior, and the degree of risk to life and property involved, it is impossible to make blanket recommendations as to working loads. The Working load limits presented in our specifications are designed for guidance in the safe use of rope. Working loads are tabulated rope in good condition with appropriate splices in non-critical applications and under normal service conditions.

A higher working load limit may be selected only with expert knowledge of conditions and professional estimates of risk; if the rope has not been subjected to dynamic loading or other excessive use, has been inspected and found to be in good condition, and is to be used in the recommended manner, and the application does not involve elevated temperatures, extended periods under load, or obvious dynamic loading such as sudden drops, snubs, or pick ups.

The Working Load Limit Range is determined by dividing the Minimum breaking Strength by the Design Factor. Design factors, like working loads, are not fixed due to the wide variety of applications and factors encountered in rope use. Users must determine the Design Factor, as they are the only ones who can assess actual service conditions and establish operating procedures. Design Factors Ranges are shown in the specifications from 5 to 12 for normal service and modest dynamic loading. You should always select a Design Factor at the high end of the range or a larger rope size should be selected for Critical Conditions of Use. Please inquire for additional information on determining elements of Critical Conditions of use.

COLMEGA 8 STRAND PLAITED PLI-MOOR®

8 strand plaited non-torque and non-hocking construction, built with high strength olefin copolymer fibers

- Durable 8 strand construction
- Easy and accurate visual inspection for internal wear
- 25% to 35% greater breaking force than polypropylene fiber.
- Higher strength, lower stretch and abrasion resistant for a long service life



TYPICAL PROPERTIES

NOMINAL DIA INCH	MM	SIZE CIRC	WT LBS/100'	MINIMUM NEW ROPE BREAKING STRENGTH	WORKING LOAD LIMITS** RANGE 1/12 - 1/5
1/2"	12	1-1/2"	5.4	5,500 LBS	642 LBS - 1,540 LBS
5/8"	16	2"	7.9	7,700 LBS	642 LBS - 1,540 LBS
3/4"	19	2-1/4"	11.3	10,700 LBS	892 LBS - 2,140 LBS
7/8"	22	2-7/5"	15.4	14,970 LBS	1,248 LBS - 2,990 LBS
1"	25	3"	19.1	18,225 LBS	1,519 LBS - 3,645 LBS
1-1/4"	32	3-3/4"	29.6	27,200 LBS	2,100 LBS - 5,040 LBS
1-1/2"	38	4-1/2"	41.6	37,975 LBS	2,906 LBS - 6,975 LBS
1-5/8"	40	5"	48.4	44,500 LBS	4,308 LBS - 10,340 LBS
1-3/4"	44	5-1/2"	55.9	51,700 LBS	5,142 LBS - 12,640 LBS
2"	48	6"	72.7	64,400 LBS	6,117 LBS - 14,680 LBS

Specific Gravity: 0.91 (Floats)
Fiber Water Absorption: 0%
Melting Point: 330° - 350° F.
Critical Temperature - 150° F.

Extra High Tenacity Polyester lines are fabricated by 4 stage Pli-Moor® construction using High Performance Polyester yarn featuring an overlay finish for dramatically improved wet abrasion resistance.

8/S PLAITED EXTRA HIGH TENACITY POLYESTER				
Size		Approx. Wt/100'	Min New Rope Breaking Force	Working Load Limits** Range 1/12-1/5
Dia	Circ			
3/8"	11/8"	4.60	3,780 lbs.	315 lbs - 756 lbs
1/2"	1 1/2"	8.0 lbs.	7,500 lbs.	625 lbs - 1500 lbs
5/8"	2"	13.2	11,520 lbs.	960 lbs - 2304 lbs
3/4"	2 1/4"	17.4	14,985 lbs.	1249 lbs - 2997 lbs
7/8"	2-3/4"	26.0	21,240 lbs.	1770 lbs - 4248 lbs
1"	3"	30.50	25,875 lbs.	2156 lbs - 5175 lbs
1 1/8"	3 1/2"	40.00	33,975 lbs.	2831 lbs - 6795 lbs
1 1/4"	3 3/4"	46.20	39,600 lbs.	3300 lbs - 7920 lbs
1 1/8"	4"	52.50	45,900 lbs.	3825 lbs - 9180 lbs
1 1/2 "	4 1/2"	69.00	59,600 lbs.	4967 lbs - 11920 lbs
1-5/8"	5"	85.50	74,000 lbs.	6167 lbs - 14800 lbs
1-3/4"	5-1/2"	104.0	88,500 lbs.	7375 lbs - 17700 lbs
2"	6"	123.0	104,000 lbs.	8667 lbs - 20800 lbs
2-1/8"	6-1/2"	140.2	120,000 lbs.	10000 lbs - 24000 lbs
2-1/4"	7"	162.5	138,000 lbs.	11500 lbs - 27600 lbs
2-1/2"	7-1/2"	188.8	158,000 lbs.	13167 lbs - 31600 lbs
2-5/8"	8"	210.6	172,000 lbs.	14333 lbs - 34400 lbs
2-7/8"	8-1/2"	238.5	198,000 lbs.	16500 lbs - 39600 lbs
3"	9"	268.3	220,000 lbs.	18333 lbs - 44000 lbs