

# FBR-POWERNEEMA® ROPE I/II/III

## 超高分子量聚乙烯缆绳I型II型III型

密度:0.97g/cm³	Specific Gravity:0.97g/cm³
熔点:145°C	Melting Point:145°C
伸长率:2.2%	Elongation:2.2%
耐磨性:非常好	Abrasion Resistance: Excellent
抗紫外线:非常好	UV Resistance: Excellent
抗化学腐蚀:好	Chemical Resistance: Good

该产品采用超高分子量聚乙烯纤维制作成绳,运用世界先进技术研发而成,具有强度高、重量轻、伸长率小、耐磨性好等显著特点。II和III型比I型更进一步提高了缆绳的耐磨性,使用寿命更持久,操作更方便、更快速、更安全。

**超高强:**同等直径时,强度与钢缆相同

**低伸长率:**破断伸长率接近钢缆

**轻质:**同等破断强力时,缆绳米重仅为钢缆的1/8,尼龙或涤纶绳的1/4~1/5,丙纶绳的18%~20%

**小直径:**同等破断强力时,直径为尼龙或涤纶绳的55%~60%、丙纶绳的45%

**应用领域:**港口拖带、超级油轮(VLCC)、超大型集装箱船、大型液化天然气船(LNG)、超级散货船(VLOC)的系泊、国防军队装备、海军装备、海洋工程、航天航空、体育器材、电力通讯、大型精密物件吊装等。

### FBR-POWERNEEMA® Rope:

FBR-POWERNEEMA® Rope is produced with ultra high molecular weight polyethylene (HMPE) fiber and high technology. It is high strength, light weight, low elongation. Type II & III is more wearable than type I. So the service life of type II & III will be longer, and the operating is more convenient, fast and safe.

**Stronger:** Under the same diameter, the strength is the same as the Wire Rope.

**Lower elongation:** the breaking elongation is close to the Wire Rope.

**Lighter:** Under the same strength, the weight(g/m) is only 1/8 of the Wire Rope, 1/4-1/5 of the Nylon rope or Polyester Rope, 18%-20% of the Polypropylene Rope.

**Smaller:** Under the same strength, the diameter of the FBR-POWERNEEMA® Rope is 55%-60% of the Nylon rope or Polyester Rope, 45% of the Polypropylene Rope.

**Application:** Port towing, mooring system for ultra large container ships/ LNG/VLCC/VLOC, Army&Navy equipment, offshore, aerospace, sports equipment, electrical communications, large precision object sling, etc.

由1型到3型耐磨度  
逐步增强  
A breakthrough enhancement  
of the abrasion resistance from  
type I to type III.



# 8-STRAND AND 12-STRAND

## 八股、十二股参数表

尺寸 Size		重量 Weight		I型		I型		II型/III型		II型/III型	
				断裂强力* ISO MBF		断裂强力** MEG4 LDBF		断裂强力* ISO MBF		断裂强力** MEG4 LDBF	
直径 mm Dia.	圆周 Inch Cir.	米重 g/m	kg/220m	千牛 kN	吨 ton	千牛 kN	吨 ton	千牛 kN	吨 ton	千牛 kN	吨 ton
6	3/4	21	4.6	39	4.0	35	3.6				
8	1	40	8.8	71	7.3	64	6.5				
10	1-1/4	61	13.4	106	10.8	95	9.7				
12	1-1/2	83	18.3	150	15.3	135	13.8				
14	1-3/4	117	25.7	211	21.5	190	19.4				
16	2	151	33.2	267	27.2	240	24.5				
18	2-1/4	184	40.5	322	32.9	290	29.6				
20	2-1-2	227	49.9	384	39.2	346	35.3				
24	3	324	71.3	533	54.4	480	49.0				
28	3-1/2	444	97.7	704	71.9	634	64.7				
32	4	589	129.6	918	93.7	826	84.3				
36	4-1/2	720	158.4	1104	112.7	994	101.4	840	85.7	756	77.1
40	5	880	193.6	1329	135.6	1196	122.0	1027	104.8	924	94.3
42	5-1-4	979	215.4	1459	148.9	1313	134.0	1142	116.5	1028	104.9
44	5-1/2	1078	237.2	1589	162.1	1430	145.9	1258	128.3	1132	115.5
46	5-3/4	1171	257.6	1698	173.2	1528	155.9	1366	139.4	1230	125.5
48	6	1264	278.1	1807	184.4	1626	165.9	1475	150.5	1327	135.4
50	6-1/4	1388	305.4	1971	201.1	1774	181.0	1619	165.2	1457	148.7
52	6-1/2	1512	332.6	2136	217.9	1922	196.1	1764	180.0	1588	162.0
54	6-3/4	1636	359.9	2300	234.7	2070	211.2	1909	194.8	1718	175.3
56	7	1760	387.2	2464	251.5	2218	226.3	2053	209.5	1848	188.6
58	7-1/4	1885	414.7	2622	267.6	2360	240.8	2199	224.4	1979	202.0
60	7-1/2	2010	442.2	2778	283.4	2500	255.1	2345	239.3	2111	215.4
62	7-3/4	2135	469.7	2936	299.5	2642	269.6	2491	254.2	2242	228.8
64	8	2260	497.2	3092	315.5	2783	284.0	2637	269.0	2373	242.1
66	8-1/4	2423	533.1	3293	336.1	2964	302.4	2827	288.5	2544	259.6
68	8-1/2	2585	568.7	3496	356.7	3146	321.0	3016	307.7	2714	277.0
70	8-3/4	2748	604.6	3697	377.2	3327	339.5	3206	327.1	2885	294.4
72	9	2910	640.2	3898	397.7	3508	358.0	3395	346.4	3056	311.8
74	9-1/4	3065	674.3	4080	416.3	3672	374.7	3576	364.9	3218	328.4
76	9-1/2	3220	708.4	4263	435.0	3837	391.5	3757	383.3	3381	345.0
78	9-3/4	3375	742.5	4444	453.5	4000	408.2	3938	401.8	3544	361.6
80	10	3530	776.6	4628	472.2	4165	425.0	4118	420.2	3707	378.2
82	10-1/4	3708	815.8	4837	493.5	4353	444.2	4326	441.4	3893	397.3
84	10-1/2	3885	854.7	5047	515.0	4542	463.5	4533	462.5	4079	416.3
86	10-3/4	4063	893.9	5256	536.3	4730	482.7	4740	483.7	4266	435.3
88	11	4240	932.8	5464	557.6	4918	501.8	4947	504.8	4452	454.3
90	11-1/4	4430	974.6	5678	579.4	5110	521.4	5168	527.4	4652	474.6
92	11-1/2	4615	1015.3	5893	601.4	5304	541.2	5384	549.4	4846	494.5
94	11-3/4	4803	1056.7	6108	623.2	5497	560.9	5604	571.8	5043	514.6
96	12	4990	1097.8	6322	645.1	5690	580.6	5822	594.0	5240	534.6
100	12-1/2	5515	1213.3	6922	706.3	6230	635.7	6434	656.5	5791	590.9
104	13	6040	1328.8	7522	767.6	6770	690.8	7047	719.0	6342	647.1
120	15	7980	1755.6	9856	1005.7	8870	905.1	9311	950.1	8380	855.1

\* MBF : Minimum Breaking Force according to ISO2307.

\*\* LDBF: Line Design Break Force according to OCIMF MEG4 appendix B.

●如果需要其它尺寸,可以根据客户要求定制。 ●Other sizes are available upon request.