

No. : TA23379E

Date : 4 April 2023

PARTICULARS OF APPROVAL

Approval Conditions for Synthetic Fibre Ropes

1. Approval No. : 23R-11
2. Trade Name : Toughlay FXL-R
3. Kind : Double Braided Rope
 - Core : Nylon Rope / Polypropylene Rope
 - Cover : Polypropylene / Polyester Composite Rope
4. Grade : Not Applicable
5. Number of Strands : See Table 1.
6. Raw Textile : See Table 1.
7. Specification : See Table 2 and Table 3.

Table 1 Part of Approval Conditions

	No. of Strands	Raw Textile	
		Manufacturer	Kind
Core	3	Toray Industries, Inc. FORMOSA CHEMICALS & FIBER CORPORATION	Nylon Multi-filament 1260D
	8 or 48	Pyung Hwa Industrial Co., Ltd. Dong Sun Synthetic Fiber Co., Ltd.	Polypropylene Multi-filament 2000D
Cover	48 or 64	Pyung Hwa Industrial Co., Ltd. Dong Sun Synthetic Fiber Co., Ltd.	Polypropylene Multi-filament 2000D
		Unitika TEIJIN POLYESTER (THAILAND) LIMITED	Polyester Multi-filament 1000D or 1500D

NIPPON KAIJI KYOKAI



Y. Takao

General Manager

Material and Equipment Department



Table 2 Specification of Toughlay FXL-R

Diameter (mm)	Mass (kg/200m)	Breaking Load (kN)
40	214	339
50	317	520
55	383	630
60	455	745
65	531	865
70	615	985
75	702	1140
80	796	1280
85	895	1435
90	999	1600
95	1108	1770
100	1225	1950

- Remark :
- (1) The above minimum breaking loads are to be satisfied at room temperature after having been immersed in warm water at $35\pm 2^{\circ}\text{C}$ for more than 30 minutes.
 - (2) The above minimum breaking loads is for the breaking test of eye spliced ropes.

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Table 3 Corresponding Diameter of Toughlay FXL-R to Hemp Rope

Diameter of Ropes (mm)	
Hemp Rope	Toughlay FXL-R
36	20
40	22
45	25
50	28
55	30
60	33
65	36
70	39
75	42
80	44
85	47
90	50
95	53
100	55
110	61
120	66
130	72
140	77
150	83
160	88
170	94
180	99
181	100