

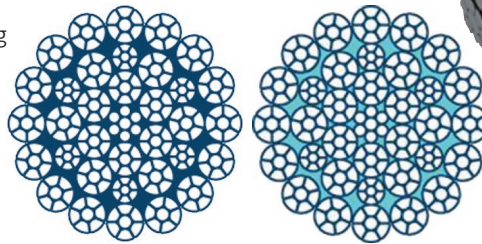
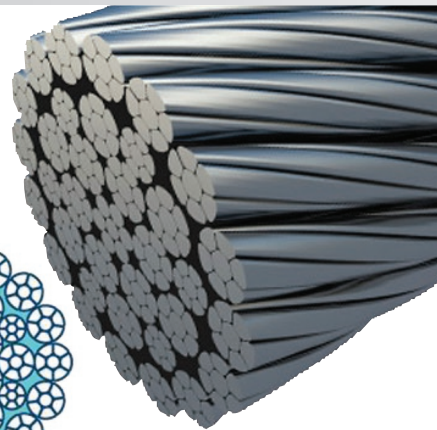


# High Performance Crane Rope



## Endurance DYFORM® 34LR/34LRPI

- ✓ Low rotation Dyform
- ✓ Recommended for high lifting operations
- ✓ Reduced rope sheave wear
- ✓ Accurate diameter, recommended for multi-layer coiling
- ✓ Long service life
- ✓ Crush resistant
- ✓ Reduced down time
- ✓ Suitable for single-part and multi-part reeving

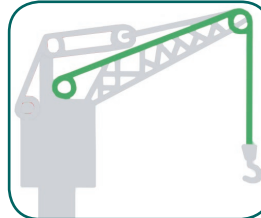


PI - Plastic Impregnated

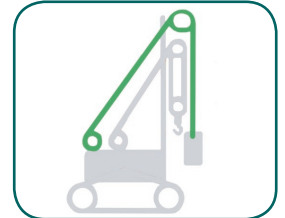


Diameter	Approx. nominal length mass	Minimum breaking force (F <sub>min</sub> )		Axial stiffness @20% load	Torque generated @20% load		Metallic cross section
		EIPS / 1960 grade			Ordinary	Lang's	
mm	kg/m	kN	tonnes	MN	N.m	N.m	mm <sup>2</sup>
<b>Dyform 34x7</b>							
10	0.50	92.1	9.39	5.8	1.5	3.3	58
11	0.61	111	11.4	7.0	2.0	4.4	70
12	0.72	133	13.5	8.3	2.5	5.7	84
13	0.85	156	15.9	9.7	3.2	7.3	98
14	0.98	181	18.4	11	4.0	9.1	114
15	1.13	207	21.1	13	5.0	11	131
16	1.28	236	24.0	15	6.0	14	149
17	1.45	266	27.1	17	7.2	16	168
18	1.62	298	30.4	19	8.6	19	188
19	1.81	333	33.9	21	10	23	210
20	2.00	368	37.6	23	12	27	232
21	2.21	406	41.4	25	14	31	256
22	2.42	446	45.4	28	16	35	281
23	2.65	487	49.7	30	18	40	307
24	2.88	531	54.1	33	20	46	335
25	3.13	576	58.7	36	23	52	363
26	3.38	623	63.5	39	26	58	393
27	3.65	672	68.5	42	29	65	424
28	3.92	722	73.6	45	32	73	456
29	4.21	775	79.0	48	36	81	489
30	4.50	829	84.5	52	40	90	523
32	5.12	939	95.7	59	48	108	595
34	5.78	1060	108	67	58	130	672
35	6.13	1124	115	70	63	142	712
36	6.48	1189	121	75	68	154	753
38	7.22	1325	135	83	81	181	839
40	8.00	1468	150	92	94	211	930

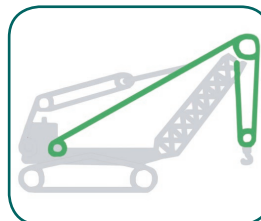
### Dockside Crane Ropes



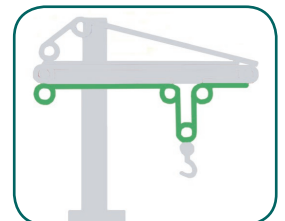
### Piling Ropes



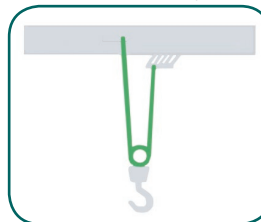
### Mobile Crane Ropes



### Tower Crane Ropes



### Overhead Crane Ropes



**The Endurance Dyform 34LR/34LRPI is used as the main hoist rope for these applications.**

\*Note: Not all sizes kept in stock.

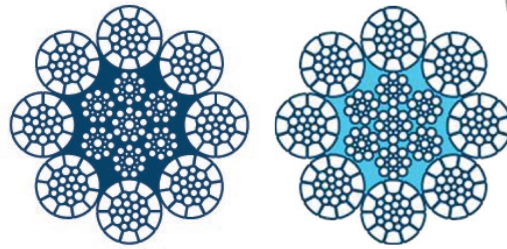
# Crane Rope

High performance, durable wire ropes for the most demanding applications

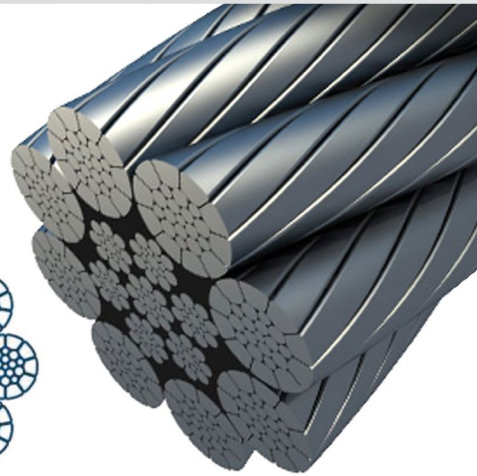


## Endurance DYFORM® 8/8PI

- ✓ Excellent service life
- ✓ High breaking force
- ✓ Lower downtime
- ✓ Flexible eight strand construction
- ✓ High temperature lubricant
- ✓ Reduced stretch
- ✓ Consistently high quality
- ✓ Reduced lifetime costs



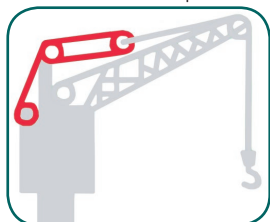
PI - Plastic Impregnated



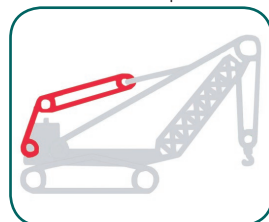
Diameter	Approx. nominal length mass	Minimum breaking force (F <sub>min</sub> )		Axial stiffness @20% load	Torque generated @20% load		Metallic cross section
		EIPS / 1960 grade			Ordinary	Lang's	
mm	kg/m	kN	tonnes	MN	N.m	N.m	mm²
<b>Dyform 8x19S</b>							
10	0.47	88.2	8.99	5.3	12	16	53
11	0.57	107	10.9	6.5	16	21	65
12	0.68	127	12.9	7.7	21	27	77
13	0.80	149	15.2	9.0	27	35	90
14	0.92	173	17.6	10	34	44	105
15	1.06	198	20.2	12	42	54	120
16	1.20	226	23.0	14	51	65	137
17	1.36	255	26.0	15	61	78	154
<b>Dyform 8x26WS</b>							
18	1.52	286	29.1	17	72	93	173
19	1.70	318	32.5	19	85	109	193
20	1.88	353	36.0	21	99	127	214
22	2.28	427	43.5	26	131	169	258
24	2.71	508	51.8	31	171	219	308
26	3.18	596	60.8	36	217	279	361
28	3.69	691	70.5	42	271	349	419
30	4.23	794	80.9	48	333	429	481
32	4.82	903	92.1	55	405	520	547
34	5.44	1020	103.9	62	485	624	617
<b>Dyform 8x36WS</b>							
36	6.10	1143	116.5	69	576	741	692
38	6.79	1274	129.8	77	678	871	771
40	7.53	1411	143.9	85	790	1016	854
42	8.30	1556	158.6	94	915	1176	942
44	9.11	1708	174.1	103	1052	1352	1034
46	9.95	1866	190.2	113	1202	1545	1130
48	10.8	2032	207.1	123	1366	1756	1230
50	11.8	2205	224.8	134	1544	1985	1335

\*Note: Not all sizes kept in stock.

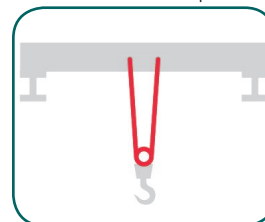
Dockside Crane Ropes



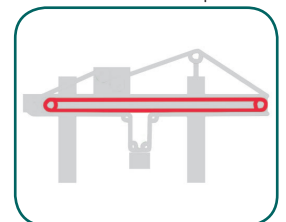
Mobile Crane Ropes



Overhead Crane Ropes



Container Crane Ropes



The Endurance Dyform 8/8PI is used as the boom hoist rope for these applications.



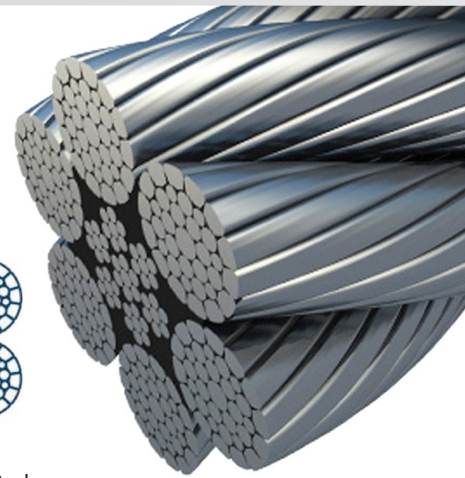
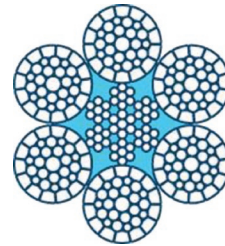
# Crane Rope

High performance, durable wire ropes for the most demanding applications



## Endurance DYFORM® 6/6PI

- ✓ Exceptional service life
- ✓ Robust crush resistant Dyform construction
- ✓ Accurate diameter
- ✓ Long life, reduced lifetime costs
- ✓ Suitable for multi-layer spooling



PI - Plastic Impregnated

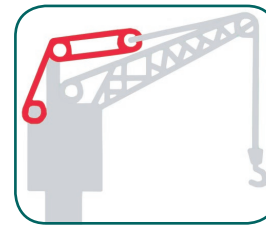


Diameter mm	Approx. nominal length mass kg/m	Minimum breaking force (F <sub>min</sub> )		Axial stiffness @20% load MN	Torque generated @20% load		Metallic cross section mm <sup>2</sup>
		EIPS / 1960 grade			Ordinary	Lang's	
		kN	tonnes		N.m	N.m	
<b>Dyform 6x26WS</b>							
8	0.29	53.0	5.40	3.5	5.8	9.2	34
9	0.37	67.0	6.83	4.4	8.3	13	43
10	0.46	82.8	8.44	5.4	11	18	53
11	0.56	100	10.2	6.6	15	24	64
12	0.66	119	12.1	7.8	20	31	76
13	0.78	140	14.3	9.2	25	40	89
14	0.90	162	16.5	11	31	50	103
15	1.03	186	19.0	12	39	61	118
<b>Dyform 6x36WS</b>							
16	1.17	212	21.6	14	47	74	135
17	1.33	239	24.4	16	56	89	152
18	1.49	268	27.3	18	67	105	170
19	1.66	299	30.5	20	78	124	190
20	1.84	331	33.7	22	91	144	210
22	2.22	401	40.8	26	122	192	255
24	2.64	477	48.6	31	158	249	303
26	3.10	559	57.0	37	201	317	356
28	3.60	649	66.1	42	251	396	413
30	4.13	745	75.9	49	308	487	474
32	4.70	847	86.4	56	374	591	539
34	5.30	957	97.5	63	449	709	608
36	5.95	1073	109	70	533	842	682
38	6.62	1195	122	78	627	990	760
40	7.34	1324	135	87	731	1155	842
42	8.09	1460	149	96	846	1337	928
44	8.88	1602	163	105	973	1537	1019
46	9.71	1751	179	115	1112	1756	1113

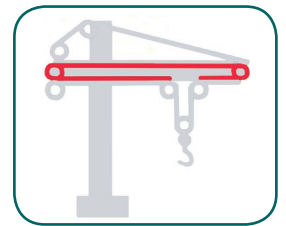
\*Note: Not all sizes kept in stock.



### Dockside Crane Ropes



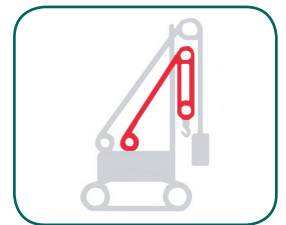
### Tower Crane Ropes



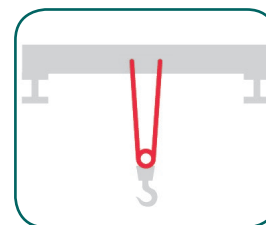
### Mobile Crane Ropes



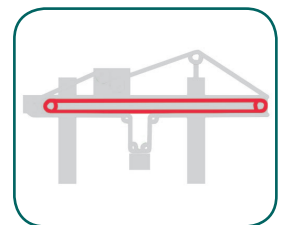
### Piling Crane Ropes



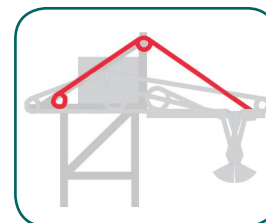
### Overhead Crane Ropes



### Container Crane Ropes



### Unloader Crane Ropes



**The Endurance Dyform 6/6PI is used as the boom hoist rope for these applications.**

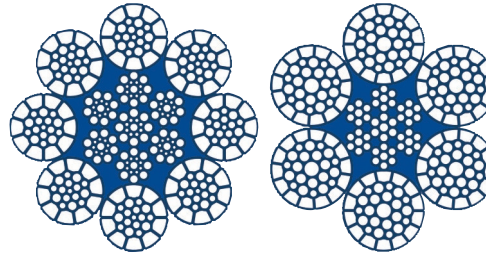
# Crane Rope

High performance, durable wire ropes for the most demanding applications



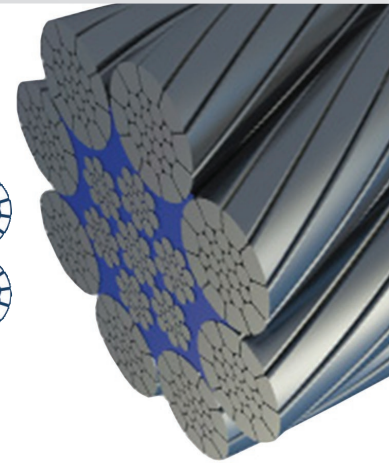
## Endurance DYFORM® BRISTAR 8 / BRISTAR 6

- ✓ Enhanced bending fatigue life due to Bristar core
- ✓ High breaking force and superior crush resistance
- ✓ Accurate diameter tolerance
- ✓ Reduced stretch offering consistent performance
- ✓ Exceptional service life, reduced lifetime costs
- ✓ Corrosion protected core
- ✓ Recommended for multi-layer spooling



BRISTAR 8

BRISTAR 6



### Endurance DYFORM® BRISTAR 8

Diameter	Nominal length mass	Minimum breaking force				Axial stiffness @20% load	Torque generated @20% load		Metallic cross section
		EIP/1960		EEIP/2160			Ordinary	Lang's	
mm	kg/m	kN	tonnes	kN	tonnes	MN	N.m	N.m	mm <sup>2</sup>
16	1.21	226	23.0	236	24.1	13.6	50.6	65.2	137
17	1.36	255	26.0	267	27.2	15.4	60.7	78.2	154
18	1.53	286	29.2	299	30.5	17.2	72.0	92.8	173
19	1.70	318	32.4	333	34.0	19.2	84.7	109	193
20	1.88	353	36.0	369	37.6	21.3	98.8	127	214
22	2.28	427	43.5	446	45.5	25.8	132	169	258
24	2.71	508	51.8	531	54.1	30.7	171	220	264
26	3.18	596	60.8	623	63.5	36.0	217	280	361
28	3.69	691	70.5	723	73.7	41.7	271	349	419
30	4.24	794	81.0	830	84.6	47.9	334	430	481
32	4.82	903	92.1	944	96.3	54.5	405	521	547
34	5.44	1020	104	1070	109	61.5	486	625	617
36	6.10	1140	116	1200	122	69.0	577	742	692
38	6.80	1270	130	1330	136	76.8	679	873	771
40	7.54	1410	144	1480	151	85.2	792	1020	854
42	8.31	1560	159	1630	166	93.9	917	1180	942
44	9.12	1710	174	1790	183	103	1050	1360	1030
46	9.97	1870	191	1950	199	113	1210	1550	1130
48	10.9	2030	207	2130	217	123	1370	1760	1230
50	11.8	2210	225	2310	236	133	1550	1990	1340

### Applications

- Mobile lattice boom cranes
- Mobile harbour cranes
- Offshore pedestal cranes
- Dockside cranes
- Floating cranes
- Bulk unloader cranes
- Ship lift ropes

## THE BRISTAR DIFFERENCE

The Bristar core provides helical 'grooves' around the wire rope strands resulting in:

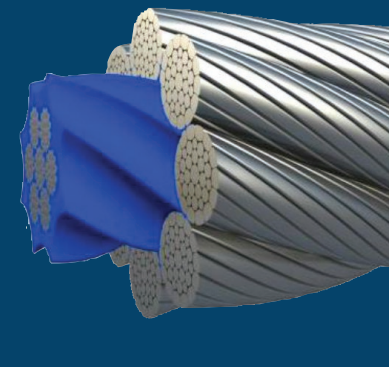
- ✓ Stronger ropes
- ✓ Improved fatigue life
- ✓ Improved spooling
- ✓ Internal corrosion protection
- ✓ Improved strand support
- ✓ Consistent control of lay length and diameter in production

### Endurance DYFORM® BRISTAR 6

Diameter	Nominal length mass	Minimum breaking force				Axial stiffness @20% load	Torque generated @20% load		Metallic cross section
		EIP/1960		EEIP/2160			Ordinary	Lang's	
mm	kg/m	kN	tonnes	kN	tonnes	MN	N.m	N.m	mm <sup>2</sup>
16	1.18	212	21.6	230	23.5	13.9	46.5	73.7	135
17	1.33	239	24.4	260	26.5	15.7	55.8	88.4	152
18	1.49	268	27.3	291	29.7	17.6	66.3	105	171
19	1.66	299	30.5	324	33.0	19.7	77.9	123	190
20	1.84	331	33.8	359	36.6	21.8	90.9	144	211
22	2.22	401	40.9	435	44.4	26.4	121	192	255
24	2.64	477	48.6	518	52.8	31.4	157	249	303
26	3.10	560	57.1	607	61.9	36.8	200	316	356
28	3.60	649	66.2	704	71.8	42.7	250	395	413
30	4.13	745	76.0	809	82.5	49.0	307	486	474
32	4.70	848	86.5	920	93.8	55.8	373	590	539
34	5.31	957	97.6	1040	106	63.0	447	707	609
36	5.95	1070	109	1160	118	70.6	531	840	683
38	6.63	1200	122	1300	133	78.7	625	988	761

### Applications

- Bulk unloader cranes



The tables within this brochure are for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Robertsons.