

202305

POWER ROPE

Define premium crane rope.



America

USA Sales Office (New York)

107 Northern Boulevard,
Suite 401 Great Neck, NY
11021, USA

nyo@dsr.com

T +1-631-427-2600

F +1-631-427-4952

Europe

Germany Sales Office (Dusseldorf)

Graf Adolf Str.98, 40210
Dusseldorf, Germany.

euo@dsr.com

T +49-211-1649906

F +49-211-1649909

ASIA

KOREA Office (Seoul)

(06109) 203 Bongeunsa-ro, Gangnam-gu, Seoul, Korea
sales@dsr.com | T +82-2-3420-3500 | F +82-2-3420-3600

JAPAN Sales Office (Osaka)

Astro Shinosaka Bldg. Room No.805 5-7-18 Nishinakajima,
Yodogawa-ku, Osaka (Post 532-0011)
jpo@dsr.com | T +81-6-6885-2750 | F +81-6-6885-2751

D|S|R



OPTIMAL SOLUTION PROVIDER

C O N T E N T S

DSR,
Your Special
Rope Company

DSR Crane
POWER ROPE

Rope Selection
Overview

Products

Contacts

DSR, YOUR SPECIAL ROPE COMPANY

DSR family

DSR based in Korea is a global organization with manufacturing locations in S.Korea, China and Vietnam. Having global sales offices in Korea, US, Japan, and Germany, DSR is active in every continent.

DSR's special know-how, state of the art production facilities and world class raw material management systems are put to use to find the perfect solution for every application. With outstanding strength, maximum service life and safe handling, our products prove the genuine value in the toughest of working environments.

Our Crane Rope range are equally innovative and manufactured with the utmost priority on safety, fit for purpose and an excellent value for the customer. We have done extensive research into the Crane sector and have produced a range of products which will meet the harsh and demanding tasks of controlling.

DSR team strives to research, collaborate, develop and deliver to our customer's needs. We share the values with our customers.

Activity area (Detailed – Wire rope)



Crane



Maritime



Construction



Heavy Industrial



Port



Mining

Global Locations



CRANE, WHY POWER ROPE?

Uncompromising quality control

POWER ROPE is managed with a thorough quality control system from purchasing raw materials to special processing of wire, the most basic component of the rope. The wire rods used by DSR are supplied from the world's best steel companies, and are being developed and improved in cooperation to meet the needs and environment of customers.



Plastic layers are also filled with "PowerPlast" developed through joint research with world-class Korean chemical companies, giving them the industry's best flexibility and specificity.



State-of-the-art equipment meets craftsmen

From wire processing to rope, it is produced through a consistent process through State-of-the-art facilities under the management of specialists with more than 30 years of experience.



Vision for sustainability

DSR studies the sustainability of industries related to the environment. Frequent rope changes are not only costly, but also cause unintended environmental pollution. So, DSR believes that extending the lifespan of a rope is the most important goal of eco-friendliness that can be realized with rope. If it is an eco-friendly lubricant with excellent performance, it will be an even better choice. For customers like us, DSR has developed lubricant options optimized for POWER ROPE to satisfy both the environment and lifespan.

Green grease options with the EU Ecomark take you one step closer to the sustainability of your business.



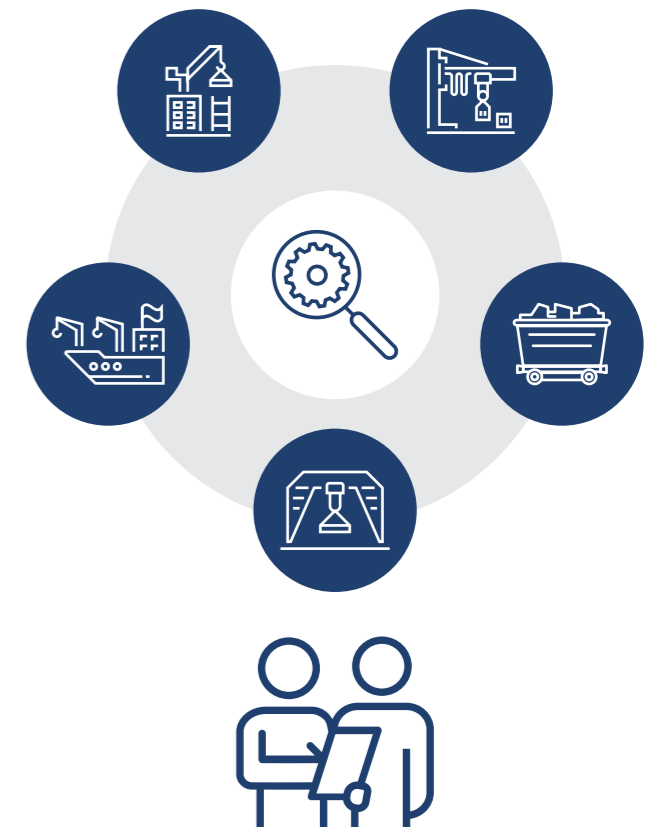
Design perfect fit for you

DSR team uses the latest design programs to create the highest efficiency and longest operating times in the same structure.

With big data on the usage environment that DSR has accumulated, the detailed structure has been redesigned to get the best performance in the usage environment.

Specialized analysis technology and differentiated technical advice service

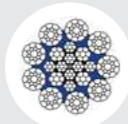

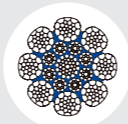




DSR team is now ready to be your special advisor. We are specialized in analyzing the usage environment, usage type, and usage habits through BC (Before Care) before sales. With our accumulated data and technology, we propose products by composing optimized raw material, surface treatment and coating of the rope structure. POWER ROPE has dozens of hundreds of different options depending on customer needs. Rather than simply suggesting the same product that was used in the past, we produce a product that reduces shortcomings and maximizes strengths, and strives to further enhance the user's product experience.

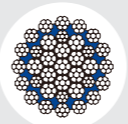

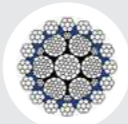
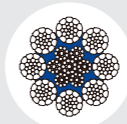
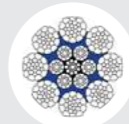
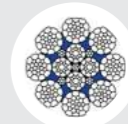




Optimal Solution Recommendation

Step 1 Choosing the right Crane Rope

From rope selection to optimization of maintenance, DSR will guide through each and every step. Our complete package of service will ensure cost effective and safest solution

		POWERACT					
Code Name		22DP	27DP	9S	17DS	17DS-S	4
Properties							
	application	Construction	Construction	Heavy industry	Construction	Construction	Construction
		Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry
		Mining	Mining	Mining			Maritime
	CMP	0	0		0	0	0
	SWIVEL	X	X	X	X	X	0
	NonRO						0
	Flat			0		0	0
	High MBL			0	0	0	0
	TEC	0	0				
Page index		12	14	16	18	20	22

		POWERTEC							
Code Name		35	35SC	29 SI	8	8S	8S PLUS	6	6S
Properties									
	application	Maritime	Maritime	Maritime	Maritime	Maritime	Maritime	Maritime	Maritime
		Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction
		Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry	Heavy industry
		Port	Port	Port	Port	Port	Port	Port	Port
									Mining
		0	0	0	0	0	0	0	0
		0	0	0	X	X	X	X	X
		0	0	0					
						0	0		0
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Optimal Solution Recommendation

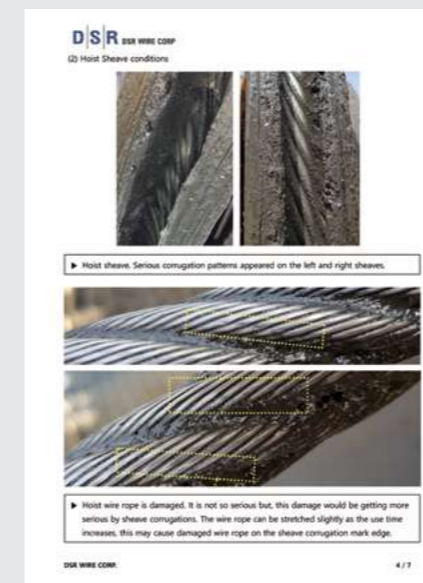
Step 2 Technical Support & Equipment Inspection

The most important variables in the maintenance cycle and lifespan of a rope are the usage environment and operating habits. To suggest the "FIT" wire rope, DSR provides pre-management (if needed) and technical support.

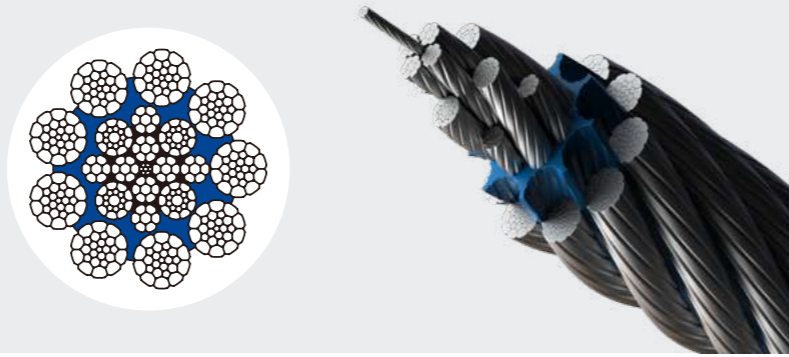


Step 3 Technical Report & Inspection Report

DSR provide management points so that products can become more "FIT" through periodic inspections even after purchase. The accumulated analysis data is used to provide customized POWERROPE just for you.



POWERACT 22DP



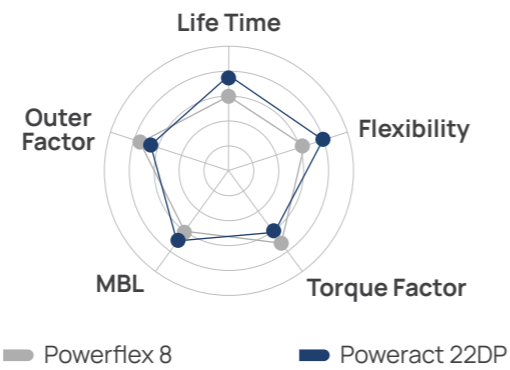
PRODUCT DETAILS

- High structural stability
- Very high breaking load
- Very high flexibility
- Excellent life time
- Prevents abrasion & break among internal wires
- Excellent resistance to deformation
- Extremely reduces internal stress
- Reversed Core lay, same core lay is available on request.

PROPERTIES



POWERACT 22DP	
Type	9 x K19S/K26WS + EPKIWRC
Size	8mm ~ 40mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.695
Elastic modulus	110,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Over Head Crane
- Mobile Harbor Crane
- Boom Hoist
- Mineral Ore Crane
- Container Crane
- Piling & Drilling crane

• If the inner plastic layer is not needed as customer's request, DSR can supply "Poweract 22D" which doesn't have plastic layer.

POWERACT 22DP

Wire Rope discard : ISO 4309 RCN 10 for 9xK26WS + EPKIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
10 Broken wires in (6d*)	5 Broken wires in (6d*)	20 Broken wires in (6d*)	38 Broken wires in (30d*)
19 Broken wires in (30d*)	10 Broken wires in (30d*)		

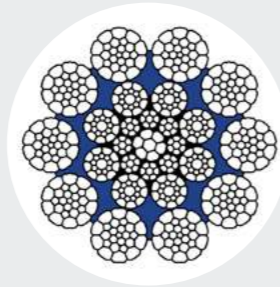
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Wire rope construction	Nominal Dia		Cross section Area	DSR SPEC		Approx Weight
				Minimum Breaking Load (kN)		
	mm	inch	mm ²	200 kg/mm ² 1960 N/mm ²	220 kg/mm ² 2160 N/mm ²	kg/m
<p>9xK19S+IWRC (4xK7+4xK7+4xK7+1xK7)</p>	8		34.9	56.2	60.2	0.31
	9		44.2	71.1	76.2	0.39
	9.5	3/8	49.3	79.2	84.9	0.43
	10		54.6	87.7	94.1	0.48
	11	7/16	66.1	106.2	113.9	0.58
	12		78.6	126.3	135.5	0.69
	12.7	1/2	88	141.5	151.8	0.77
	13		92	148.3	159.1	0.81
	14		107	172.0	184.5	0.94
	14.3	9/16	112	179.4	192.5	0.98
	15		123	197.4	211.8	1.08
	16	5/8	140	224.6	241.0	1.23
	17.5	11/16	167	268.7	288.3	1.47
	18		177	284.3	305.0	1.55
	19	3/4	197	316.7	339.8	1.73
	20		218	350.9	376.5	1.92
	22	7/8	264	424.6	455.6	2.32
	24		315	505.4	542.2	2.76
	25		341	548.3	588.3	2.99
25.4	1	352	566.0	607.3	3.09	
26		369	593.1	636.3	3.24	
28		428	687.8	737.9	3.75	
28.6	1-1/8	447	717.6	769.9	3.92	
30		491	789.6	847.1	4.31	
32	1-1/4	559	898.4	963.8	4.90	
34		631	1014.2	1088.1	5.54	
35	1-3/8	669	1074.8	1153.0	5.87	
36		708	1137.1	1219.9	6.21	
38		788	1266.9	1359.2	6.92	
38.1	1-1/2	793	1273.6	1366.3	6.95	
40		874	1403.8	1506.0	7.66	

• Available Right and Left hand – Standard Regular lay (Lang lay on request)

POWERACT 27DP



PRODUCT DETAILS

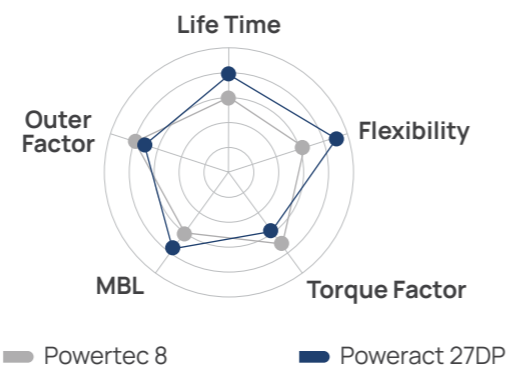
- High structural stability
- Very high breaking load
- Very high flexibility
- Excellent life time
- Prevents abrasion & break among internal wires
- Excellent resistance to deformation
- Extremely reduces internal stress
- Reversed Core lay, same core lay is available on request.

PROPERTIES



POWERACT 27DP

Type	10 x K26WS + EPKIWRC
Size	8mm ~ 44mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.693
Elastic modulus	111,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Over Head Crane
- Boom Hoist
- Container Crane
- Mobile Harbor Crane
- Mineral Ore Crane
- Piling & Drilling crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Poweract 27D" which doesn't have plastic layer.

POWERACT 27DP

Wire Rope discard : ISO 4309 RCN 11 for 10xK26WS + EPKIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
10 Broken wires in (6d*)	5 Broken wires in (6d*)	20 Broken wires in (6d*)	42 Broken wires in (30d*)
21 Broken wires in (30d*)	10 Broken wires in (30d*)		

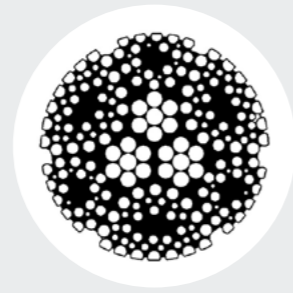
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Wire rope construction	Nominal Dia		DSR SPEC			
			Cross section Area	Minimum Breaking Load (kN)		Approx Weight
	mm	inch		mm ²	200 kg/mm ² 1960 N/mm ²	
10xK26WS+KIWRC (8xK7+8xK7+1xK7)	8		34.8	57.4	61.6	0.31
	9		44.1	72.6	77.9	0.39
	9.5	3/8	49.1	80.9	86.8	0.43
	10		54.4	89.6	96.2	0.48
	11	7/16	65.8	108.5	116.4	0.58
	12		78.3	129.1	138.5	0.69
	12.7	1/2	88	144.6	155.1	0.77
	13		92	151.5	162.5	0.81
	14		107	175.7	188.5	0.94
	14.3	9/16	111	183.3	196.7	0.98
	15		122	201.7	216.4	1.08
	16	5/8	139	229.5	246.2	1.22
	17.5	11/16	167	274.5	294.5	1.46
	18		176	290.5	311.6	1.55
	19	3/4	196	323.6	347.2	1.73
	20		218	358.6	384.7	1.91
	22	7/8	263	433.9	465.5	2.31
24		313	516.4	554.0	2.75	
25		340	560.3	601.1	2.99	
25.4	1	351	578.4	620.5	3.09	
26		368	606.0	650.2	3.23	
28		426	702.8	754.0	3.75	
28.6	1-1/8	445	733.3	786.7	3.91	
30		490	806.8	865.6	4.30	
32	1-1/4	557	918.0	984.8	4.90	
34		629	1036.3	1111.8	5.53	
35	1-3/8	666	1098.2	1178.2	5.86	
36		705	1161.8	1246.4	6.20	
38		786	1294.5	1388.8	6.91	
38.1	1-1/2	790	1301.3	1396.1	6.94	
40		870	1434.4	1538.8	7.65	
42	1-1/2	960	1581.4	1696.5	8.44	
44		1053	1735.6	1862.0	9.26	

• Available Right and Left hand – Standard Regular lay (Lang lay on request)

POWERACT 9S



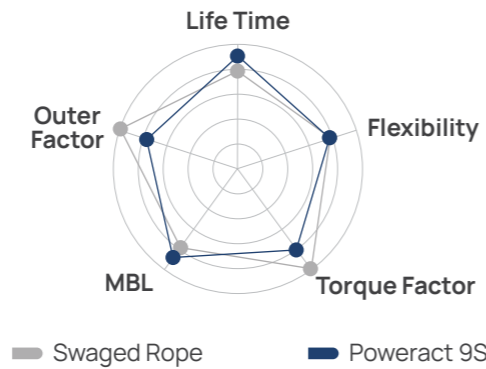
PRODUCT DETAILS

- Excellent life time
- High breaking load
- Excellent resistance of abrasion
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Parallel type non-rotation resistant rope

PROPERTIES



POWERACT 9S	
Type	[3x40WS + 3x24Fi] + PWRC
Size	12mm ~ 46mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.721
Elastic modulus	115,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Piling Crane
- Crane Hoist
- Mining Logging industry
- Sky line Drilling line

POWERACT 9S

Wire Rope discard : ISO 4309 RCN. 07

* d = nominal diameter of rope

Single Layer Drum	
Ordinary lay	Lang lay
7 Broken wires in (6d*)	4 Broken wires in (30d*)
14 Broken wires in (30d*)	7 Broken wires in (30d*)

Multi Layer Drum	
Ordinary lay & Lang lay	
14 Broken wires in (6d*)	28 Broken wires in (30d*)

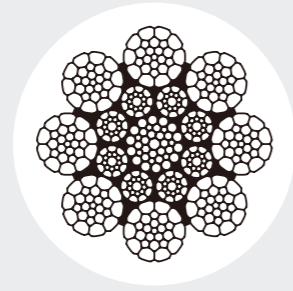
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area	DSR SPEC		Approx Weight
			Minimum Breaking Load (kN)		
mm	inch	mm ²	200 kg/mm ² 1960 N/mm ²	220 kg/mm ² 2160 N/mm ²	kg/m
12		81.4	130.9	143.9	0.71
12.7	1/2	91	146.6	161.2	0.80
13		96	153.6	168.9	0.84
14		111	178.1	195.8	0.97
14.3	9/16	116	185.8	204.3	1.01
15		127	204.5	224.8	1.12
16	5/8	145	232.6	255.8	1.27
17.5	11/16	173	278.3	306.0	1.52
18		183	294.4	323.7	1.61
19	3/4	204	328.1	360.7	1.79
20		226	363.5	399.7	1.98
22	7/8	274	439.8	483.6	2.40
24		326	523.4	575.5	2.85
25		353	568.0	624.5	3.10
25.4	1	365	586.3	644.6	3.20
26		382	614.3	675.5	3.35
28		443	712.5	783.4	3.89
28.6	1-1/8	462	743.3	817.3	4.05
30		509	817.9	899.3	4.46
32	1-1/4	579	930.6	1023.2	5.08
34		653	1050.5	1155.1	5.73
35	1-3/8	692	1113.2	1224.0	6.07
36		732	1177.8	1295.0	6.42
38		816	1312.3	1442.8	7.16
38.1	1-1/2	820	1319.2	1450.4	7.19
40		904	1454.0	1598.7	7.93
42	1-5/8	997	1603.1	1762.6	8.74
44		1094	1759.4	1934.4	9.60
45		1144	1840.3	2023.4	10.04
46		1196	1923.0	2114.3	10.49

• Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERACT 17DS



PRODUCT DETAILS

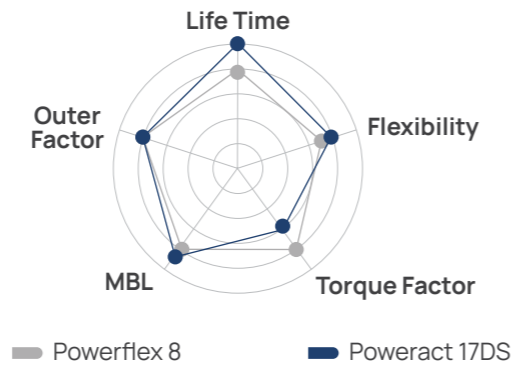
- Excellent life time
- Very High breaking load
- Excellent structural stability
- Excellent resistance of abrasion
- Extremely reduces internal stress
- Non rotation resistant Rope

PROPERTIES



Rope Size(mm)	Recommended Construction	Number of load bearing wires
8 - 16	8xK19S	152
18 - 36	8xK26WS	208
38 - 46	8xK31WS	248

POWERACT 17DS	
Type	8 x K26WS + PWRC
Size	8mm ~ 46mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.739
Elastic modulus	116,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Container Crane Boom Hoist
- Over Head Crane
- Mobile Harbor Crane

POWERACT 17DS

Wire Rope discard : ISO 4309 RCN 09 for 8 x K26WS + PWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

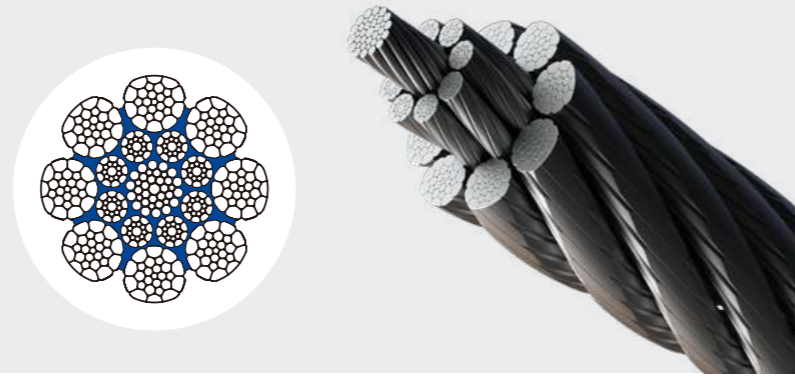
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		DSR SPEC			
		Cross section area	Minimum Breaking Load (kN)		Approx Weight
mm	inch	mm ²	1960 N/mm ²	2160N/mm ²	kg/m
8		36.6	61.9	64.8	0.32
9		46.3	78.4	82.1	0.40
9.5	3/8	51.6	87.3	91.4	0.44
10		57.2	96.7	101.3	0.49
11.2	7/16	71.8	121.4	127.1	0.62
12		82.4	139.3	145.9	0.71
12.7	1/2	92.3	156.0	163.4	0.79
14		112.1	189.6	198.6	0.97
16	5/8	146.4	247.7	259.4	1.26
18		185.3	313.4	328.3	1.60
19	3/4	206.5	349.2	365.8	1.78
20		228.8	387.0	405.3	1.97
22	7/8	276.9	468.2	490.4	2.38
24		329.5	557.2	583.6	2.84
25.4	1	369.1	624.1	653.7	3.18
26		386.7	654.0	685.0	3.33
28		448.5	758.5	794.4	3.86
28.6	1-1/8	467.9	791.3	828.8	4.03
30		514.9	870.7	912.0	4.43
32	1-1/4	585.8	990.6	1037.6	5.04
34		661.3	1118.3	1171.3	5.69
36		741.4	1253.8	1313.2	6.38
38		826.1	1397.0	1463.2	7.11
40		915.3	1547.9	1621.2	7.88
42		1009.1	1706.5	1787.4	8.69
44		1107.5	1872.9	1961.7	9.54
46		1210.5	2047.1	2144.1	10.42

• Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERACT 17DS-S



PRODUCT DETAILS

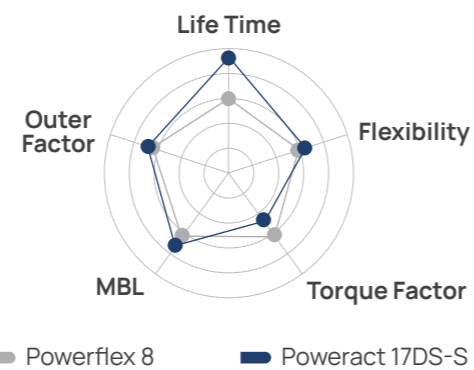
- Excellent life time
- Very High breaking load
- Excellent structural stability
- Excellent resistance of abrasion
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Non rotation resistant Rope

PROPERTIES



Rope Size (mm)	Recommended Construction	Number of load bearing wires
8 - 16	8xK19S	152
18 - 38	8xK26WS	208
40 - 46	8xK31WS	248

POWERACT 17DS-S	
Type	K8 x K26WS + PWRC
Size	8mm ~ 46mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.787
Elastic modulus	118,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Container Crane
- Boom Hoist
- Over Head Crane
- Mobile Harbor Crane

• If you want our product having higher MBL, we can adjust the swaging rate so that the product can have higher MBL. So please ask our sales manager about your request.

POWERACT 17DS-S

Wire Rope discard : ISO 4309 RCN 09 for K8 x K26WS + PWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

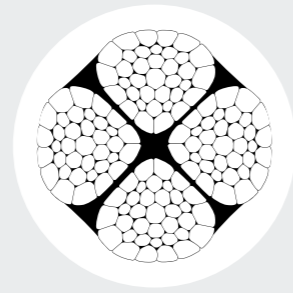
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		DSR SPEC			
		Cross section area	Minimum Breaking Load (kN)		Approx Weight
mm	inch	mm ²	1960 N/mm ²	2160N/mm ²	kg/m
8		38.9	65.7	68.8	0.34
9		49.3	83.2	87.1	0.42
9.5	3/8	54.9	92.7	97.1	0.47
10		60.8	102.7	107.6	0.52
11.2	7/16	76.3	128.8	134.9	0.66
12		87.6	147.9	154.9	0.76
12.7	1/2	98.1	165.7	173.5	0.85
14		119.3	201.3	210.8	1.03
16	5/8	155.8	262.9	275.4	1.34
18		197.1	332.8	348.5	1.70
19	3/4	219.7	370.8	388.3	1.89
20		243.4	410.8	430.3	2.10
22	7/8	294.5	497.1	520.7	2.54
24		350.5	591.6	619.6	3.02
25.4	1	392.5	662.6	694.0	3.38
26		411.3	694.3	727.2	3.54
28		477.0	805.2	843.4	4.11
28.6	1-1/8	497.7	840.1	879.9	4.29
30		547.6	924.4	968.2	4.72
32	1-1/4	623.1	1051.7	1101.6	5.37
34		703.4	1187.3	1243.6	6.06
36		788.6	1331.1	1394.2	6.80
38		878.6	1483.1	1553.4	7.57
40		973.5	1643.3	1721.2	8.39
42		1073.3	1811.7	1897.6	9.25
44		1178.0	1988.4	2082.6	10.15
46		1287.5	2173.3	2276.3	11.10

• Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERACT 4



PRODUCT DETAILS

- Rotation resistant rope
- High abrasion resistance
- Excellent resistance to crushing, deformation
- High structural stability
- Excellent life time
- High MBL

PROPERTIES



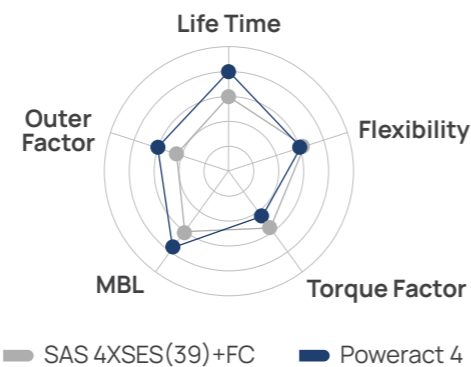
- Eco-friendly grease applicable.



Rope Size(mm)	Recommended Construction	Number of load bearing wires
8 - 38	K4xK36WS	144
38 - 48	K4xK41WS	164

POWERACT 4

Type	K4 x K36WS/K41WS + FC
Size	8mm ~ 48mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.713
Elastic modulus	112,500N/mm ² ± 5,000N/mm ²



APPLICATIONS

Mobile Crane **Deck Crane** **Suspended Cradle**

- POWERACT 4 is recommended for deep sea Sounding and Oceanographic research operations.
- If you want to use this rope for suspended cradle, please let us know it's application.
- Because Poweract 4 for suspended cradle has some different design factors.

POWERACT 4

Wire Rope discard : ISO 4309 RCN 22 for K4 x K36WS+FC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Sections of rope working in steel sheaves			
2 Broken wires in (6d*)	4 Broken wires in (30d*)	4 Broken wires in (6d*)	8 Broken wires in (30d*)

SHEAVE GROOVE DIAMETER

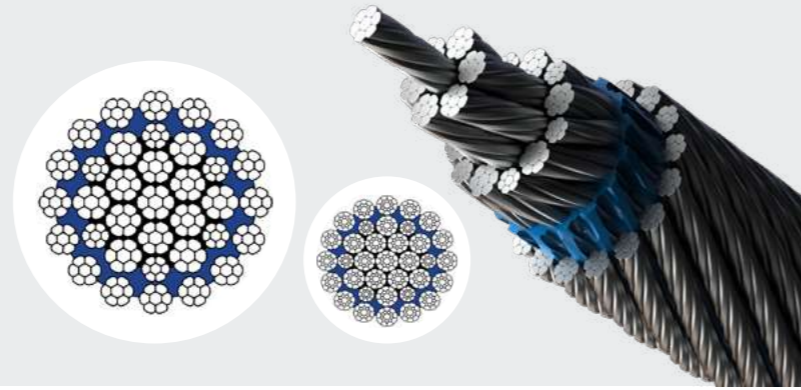
Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area mm ²	DSR SPEC Minimum Breaking Load (kN)			Approx Weight kg/m
mm	inch		1770 N/mm ²	1960 N/mm ²	2160N/mm ²	
8		35.9	53.7	59.1	63.4	0.31
9		45.4	67.9	74.8	80.3	0.39
9.5	3/8	50.6	75.7	83.4	89.4	0.44
10		56.1	83.9	92.4	99.1	0.49
11	7/16	67.8	101.5	111.8	119.9	0.59
12		80.7	120.8	133.0	142.7	0.70
12.7	1/2	90.4	135.3	149.0	159.9	0.78
13		94.7	141.7	156.1	167.5	0.82
14		109.9	164.4	181.1	194.3	0.95
14.3	9/16	114.6	171.5	188.9	202.7	0.99
15		126.1	188.7	207.9	223.0	1.09
16	5/8	143.5	214.7	236.5	253.7	1.24
17.5	11/16	171.7	256.8	282.9	303.5	1.49
18		181.6	271.7	299.3	321.1	1.57
19	3/4	202.4	302.7	333.5	357.8	1.75
20		224.2	335.4	369.5	396.4	1.94
22	7/8	271.3	405.9	447.1	479.7	2.35
24		322.9	483.0	532.1	570.9	2.80
25		350.4	524.1	577.4	619.4	3.03
25.4	1	361.7	541.0	596.0	639.4	3.13
26		378.9	566.9	624.5	670.0	3.28
28		439.5	657.5	724.3	777.0	3.81
28.6	1-1/8	458.5	686.0	755.6	810.7	3.97
30		504.5	754.8	831.4	892.0	4.37
32	1-1/4	574.0	858.7	946.0	1014.9	4.97
34		648.0	969.4	1067.9	1145.7	5.61
35	1-3/8	686.7	1027.3	1131.7	1214.1	5.95
36		726.5	1086.8	1197.3	1284.5	6.29
38		809.5	1211.0	1334.0	1431.1	7.01
39		852.6	1275.5	1405.1	1507.4	7.38
40		896.9	1341.8	1478.1	1585.7	7.77
42	1-5/8	988.8	1479.3	1629.6	1748.3	8.56
44		1085.3	1623.6	1788.5	1918.7	9.40
44.5	1-3/4	1110.1	1660.7	1829.4	1962.6	9.61
46		1186.2	1774.5	1954.8	2097.1	10.27
48	1-7/8	1291.6	1932.2	2128.5	2283.5	11.18

The MBL in the dot line box inside should be confirmed by DSR before ordering

- Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERTEC 35



PRODUCT DETAILS

- Full non rotating rope
- Excellent life time
- High breaking load
- Excellent Wear-resistant
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Option: Protected internal wires by plastic impregnation

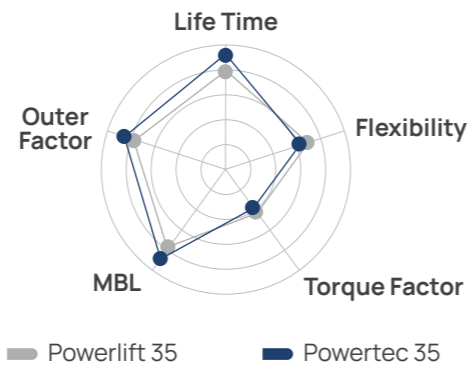
PROPERTIES



- Eco-friendly grease applicable.



Rope Size (mm)	Recommended Construction	Number of load bearing wires
8 - 40	35WxK7	112
42 - 64	35WxK19S	304



POWERTEC 35

Type	35W x K7 / 35W x K19S
Size	8mm ~ 64mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.723
Torque factor / Elastic modulus	0.007 (@20% MBL) 116,000N/mm ² ± 5,000N/mm ²

APPLICATIONS

- Tower Crane
- Level Luffing Crane
- Crawler Crane
- Hydro Crane
- Deck Crane
- Ocean Industry

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 35" which doesn't have plastic layer.

POWERTEC 35

Wire Rope discard : ISO 4309 RCN 23-2 / n >300

* d = nominal diameter of rope

Construction	Single Layer Drum	Multi Layer Drum
35 x K7	3 Broken wires in (6d*) 5 Broken wires in (30d*)	5 Broken wires in (6d*) 10 Broken wires in (30d*)
35 x K19S	6 Broken wires in (6d*) 12 Broken wires in (30d*)	12 Broken wires in (6d*) 24 Broken wires in (30d*)

SHEAVE GROOVE DIAMETER

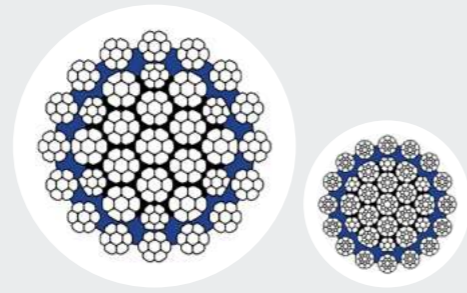
Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Wire rope construction	Nominal Dia		Cross section Area mm ²	DSR SPEC Minimum Breaking Load (kN)		Approx Weight kg/m
	mm	inch		1960 N/mm ²	2160 N/mm ²	
16 x K7 + IWRC : 35 x K7	8	5/16	36.0	59.3	63.6	0.31
	9		45.5	75.0	80.5	0.40
	10		56.2	92.7	99.4	0.49
	11		68.0	112.1	120.3	0.59
	12		81.0	133.4	143.1	0.70
	13		95.0	156.6	168.0	0.83
	14		110.2	181.6	194.8	0.96
	14.3	9/16	115.0	189.5	203.3	1.00
	15		126.5	208.5	223.6	1.10
	16	5/8	143.9	237.2	254.5	1.25
	17.5	11/16	172.2	283.8	304.4	1.50
	18		182.2	300.2	322.1	1.58
	19		203.0	334.5	358.8	1.76
	20		224.9	370.6	397.6	1.95
	21	13/16	247.9	408.6	438.4	2.15
	22		272.1	448.4	481.1	2.36
	22.2	7/8	277.1	456.6	489.9	2.41
23		297.4	490.1	525.8	2.58	
24	15/16	323.8	533.7	572.5	2.81	
25		351.4	579.1	621.2	3.05	
25.4	1	362.7	597.8	641.3	3.15	
26		380.1	626.3	671.9	3.30	
28		440.8	726.4	779.3	3.83	
28.6	1-1/8	459.9	757.9	813.1	3.99	
30	1-3/16	506.0	833.9	894.6	4.40	
31.8	1-1/4	568.5	936.9	1005.2	4.94	
32		575.7	948.8	1017.9	5.00	
34		649.9	1071.1	1149.1	5.65	
36		728.6	1200.8	1288.2	6.33	
38	1-1/2	811.8	1337.9	1435.3	7.05	
40		899.5	1482.5	1590.4	7.81	
42		1000.7	1634.4	1753.4	8.71	
44		1098.2	1793.8	1924.4	9.56	
46		1200.3	1960.5	2103.3	10.45	
48		1307.0	2134.7	2290.2	11.38	
50		1418.2	2316.3	2485.0	12.35	
52		1533.9	2505.3	2687.8	13.35	
54	2-1/8	1654.1	2701.8	2898.5	14.40	
56		1778.9	2905.6	3117.2	15.49	
58		1908.3	3116.9	3343.8	16.61	
60	2-3/8	2042.2	3335.5	3578.4	17.78	
62		2180.6	3561.6	3820.9	18.98	
64		2323.5	3795.1	4071.4	20.23	

The rope construction of Powertec 35 in the diameter range from 42~64mm can be changed from 35 x K19S to 35 x K7 as customer's request. But it can have a bit lower MBL that 35 x K19S. Please ask regional sales manager the MBL for that.

- Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERTEC 35SC



PRODUCT DETAILS

- Full non rotating rope
- Excellent life time
- Very high breaking load
- Excellent Wear-resistant
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Option: Protected internal wires by plastic impregnation

PROPERTIES

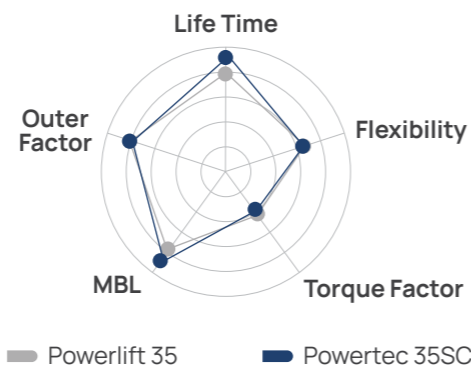


- Eco-friendly grease applicable.

Rope Size (mm)	Recommended Construction	Number of load bearing wires
8 - 40	35WxK7	112
42 - 64	35WxK19S	304

POWERTEC 35SC

Type	35W x K7 / 35W x K19S
Size	8mm ~ 64mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.738
Torque factor / Elastic modulus	0.006 (@20% MBL) 119,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Tower Crane
- Level Luffing Crane
- Crawler Crane
- Hydro Crane
- Deck Crane
- Ocean Industry
- Offshore Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 35SC" which doesn't have plastic layer.

POWERTEC 35SC

Wire Rope discard : ISO 4309 RCN 23-2 / n >300

Construction	Single Layer Drum	Multi Layer Drum
35 x K7	3 Broken wires in (6d*) 5 Broken wires in (30d*)	5 Broken wires in (6d*) 10 Broken wires in (30d*)
35 x K19S	6 Broken wires in (6d*) 12 Broken wires in (30d*)	12 Broken wires in (6d*) 24 Broken wires in (30d*)

SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Wire rope construction	Nominal Dia		Cross section Area mm ²	DSR SPEC Minimum Breaking Load (kN)		Approx Weight kg/m
	mm	inch		1960 N/mm ²	2160 N/mm ²	
16 x K7 + KIWRG : 35 x K7	8	5/16	37.1	61.2	65.6	0.32
	9		47.0	77.4	83.1	0.41
	10		58.0	95.6	102.6	0.50
	11		70.2	115.7	124.1	0.61
	12		83.5	137.7	147.7	0.73
	13		98.0	161.6	173.3	0.85
	14		113.7	187.4	201.0	0.99
	14.3	9/16	118.6	195.5	209.7	1.03
	15		130.5	215.1	230.8	1.13
	16	5/8	148.5	244.7	262.6	1.29
	17.5	11/16	177.7	292.8	314.1	1.54
	18		188.0	309.7	332.3	1.63
	19		209.4	345.1	370.2	1.82
	20		232.0	382.4	410.2	2.01
	21	13/16	255.8	421.6	452.3	2.22
	22		280.8	462.7	496.4	2.44
	22.2	7/8	285.9	471.2	505.5	2.48
	23		306.9	505.7	542.5	2.66
	24	15/16	334.1	550.7	590.8	2.90
25		362.6	597.5	641.0	3.15	
25.4	1	374.3	616.8	661.7	3.25	
26		392.1	646.3	693.3	3.40	
28		454.8	749.5	804.1	3.95	
28.6	1-1/8	474.5	782.0	838.9	4.12	
30	1-3/16	522.1	860.4	923.0	4.53	
31.8	1-1/4	586.6	966.7	1037.1	5.09	
32		594.0	978.9	1050.2	5.16	
34		670.6	1105.1	1185.6	5.82	
36		751.8	1239.0	1329.2	6.53	
38	1-1/2	837.7	1380.5	1481.0	7.27	
40		928.2	1529.6	1641.0	8.06	
42		1043.3	1686.4	1809.2	9.08	
44		1145.1	1850.8	1985.6	9.96	
46		1251.5	2022.9	2170.2	10.89	
48		1362.7	2202.6	2363.0	11.85	
50		1478.7	2390.0	2564.0	12.86	
52		1599.3	2585.0	2773.2	13.91	
54	2-1/8	1724.7	2787.7	2990.7	15.00	
56		1854.8	2998.0	3216.3	16.13	
58		1989.7	3216.0	3450.1	17.31	
60	2-3/8	2129.3	3441.6	3692.2	18.52	
62		2273.6	3674.9	3942.4	19.78	
64		2422.6	3915.8	4200.9	21.07	
16 x K19S + KIWRG : 35 x K19S	38	1-1/2	837.7	1380.5	1481.0	7.27
	40		928.2	1529.6	1641.0	8.06
	42		1043.3	1686.4	1809.2	9.08
	44		1145.1	1850.8	1985.6	9.96
	46		1251.5	2022.9	2170.2	10.89
	48		1362.7	2202.6	2363.0	11.85
	50		1478.7	2390.0	2564.0	12.86
	52		1599.3	2585.0	2773.2	13.91
	54	2-1/8	1724.7	2787.7	2990.7	15.00
	56		1854.8	2998.0	3216.3	16.13

The rope construction of Powertec 35SC in the diameter range from 42~64mm can be changed from 35 x K19S to 35 x K7 as customer request. But it can have a bit lower MBL than 35 x K19S. Please ask regional sales manager the MBL for that.

- Available Right and Left hand - Standard Lang lay (Regular lay on request)

POWERTEC 29 SI



PRODUCT DETAILS

- Rotating resistant rope
- Excellent life time
- Very High breaking load
- Excellent Wear-resistant
- High flexibility
- Resistance of crushing damage
- Extended life of winch drum and sheave

PROPERTIES



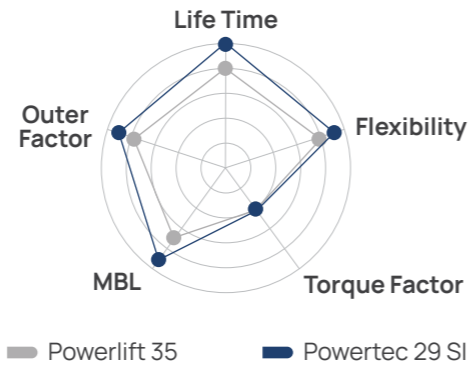
- Eco-friendly grease applicable.



Rope Size(mm)	Recommended Construction	Number of load bearing wires
8 - 44	16xK7 + EPKIWRC	112

POWERTEC 29 SI

Type	16 x K7 + [31WS/26WS+6xK31WS/ K26WS+6xK7]
Size	8mm ~ 44mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.752
Torque factor / Elastic modulus	0.007(@20% MBL) 120,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Tower Crane
- Level Luffing Crane
- Deck Crane
- Hydro Crane
- Offshore Crane
- Crawler Crane
- Ocean Industry

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 29 SI" which doesn't have plastic layer.

POWERTEC 29 SI

Wire Rope discard : ISO 4309 RCN 23-2

* d = nominal diameter of rope

Construction	Single Layer Drum	Multi Layer Drum
POWERACT 29 SI	3 Broken wires in (6d*) 5 Broken wires in (30d*)	5 Broken wires in (6d*) 10 Broken wires in (30d*)

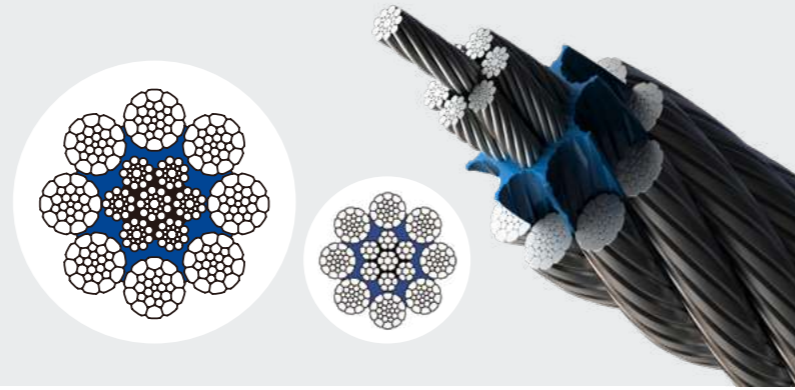
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area mm ²	DSR SPEC		Approx Weight kg/m
mm	inch		Minimum Breaking Load (kN)		
			1960 N/mm ²	2160N/mm ²	
8	5/16	37.8	62.3	66.8	0.33
9		47.8	78.9	84.6	0.42
10		59.1	97.3	104.4	0.52
11		71.5	117.8	126.4	0.63
12		85.1	140.2	150.4	0.75
13		99.8	164.5	176.5	0.87
14		115.8	190.8	204.7	1.01
14.3	9/16	120.8	199.1	213.6	1.06
15		132.9	219.0	235.0	1.16
16	5/8	151.2	249.2	267.4	1.33
17.5	11/16	180.9	298.1	319.8	1.59
18		191.4	315.4	338.4	1.68
19		213.2	351.4	377.0	1.87
20		236.3	389.4	417.7	2.07
21	13/16	260.5	429.3	460.6	2.28
22		285.9	471.2	505.5	2.51
22.2	7/8	291.1	479.8	514.7	2.55
23		312.5	515.0	552.5	2.74
24	15/16	340.2	560.7	601.6	2.98
25		369.2	608.4	652.7	3.24
25.4	1	381.1	628.1	673.8	3.34
26		399.3	658.1	706.0	3.50
28		463.1	763.2	818.8	4.06
28.6	1-1/8	483.2	796.3	854.2	4.23
30	1-3/16	531.6	876.1	939.9	4.66
31.8	1-1/4	597.3	984.4	1056.1	5.23
32		604.9	996.8	1069.4	5.30
34		682.9	1125.3	1207.3	5.98
36		765.6	1261.6	1353.5	6.71
38	1-1/2	853.0	1405.7	1508.1	7.47
40		945.1	1557.6	1671.0	8.28
42		1042.0	1717.2	1842.3	9.13
44		1143.6	1884.7	2021.9	10.02

• Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERTEC 8



PRODUCT DETAILS

- Excellent life time
- High breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required

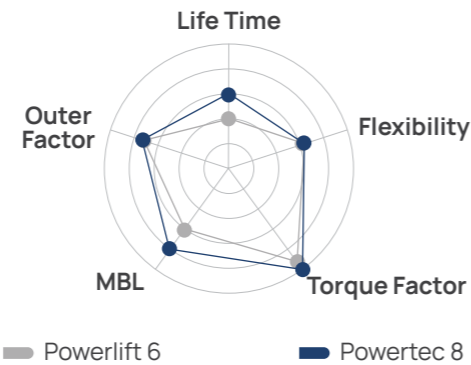
PROPERTIES



- Eco-friendly grease applicable.



Rope Size(mm)	Recommended Construction	Number of load bearing wires
8 - 14	8xK19S	152
15 - 39	8xK26WS	208
40 - 48	8xK31WS	248
49 - 64	8xK36WS	288



POWERTEC 8

Type	8 x K19S/K26WS/K31WS/K36WS + EPIWRC
Size	8mm ~ 64mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.665
Elastic modulus	105,000N/mm ² ± 5,000N/mm ²

APPLICATIONS

- Container Crane
- Mobile Harbor Crane
- Boom Hoist
- Over Head Crane
- Offshore Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 8" which doesn't have plastic layer.

POWERTEC 8

Wire Rope discard : ISO 4309 RCN. 09 for 8 x K26WS + EPIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

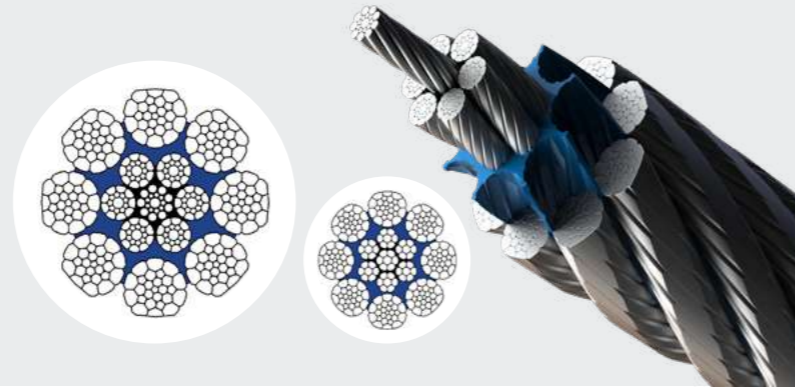
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area mm ²	DSR SPEC Minimum Breaking Load (kN)		Approx Weight kg/m
mm	inch		1960 N/mm ²	2160N/mm ²	
8	5/16	33.9	56.4	60.1	0.29
9		42.9	71.3	76.1	0.37
10		52.9	88.0	94.0	0.46
11		64.0	106.5	113.7	0.55
12		76.2	126.8	135.3	0.66
13		89.4	148.8	158.8	0.77
14		103.7	172.6	184.2	0.89
14.3	9/16	108.2	180.0	192.2	0.93
15		119.1	198.1	211.4	1.03
16	5/8	135.5	225.4	240.6	1.17
17.5	11/16	162.0	269.6	287.8	1.40
18		171.4	285.3	304.5	1.48
19		191.0	317.8	339.2	1.65
20		211.7	352.2	375.9	1.82
21	13/16	233.3	388.3	414.4	2.01
22		256.1	426.1	454.8	2.21
22.2	7/8	260.8	433.9	463.1	2.25
23		279.9	465.8	497.1	2.41
24	15/16	304.8	507.2	541.3	2.63
25		330.7	550.3	587.3	2.85
25.4	1	341.4	568.0	606.3	2.94
26		357.7	595.2	635.3	3.08
28		414.8	690.3	736.8	3.58
28.6	1-1/8	432.8	720.2	768.7	3.73
30	1-3/16	476.2	792.4	845.8	4.11
31.8	1-1/4	535.1	890.4	950.3	4.61
32		541.8	901.6	962.3	4.67
34		611.7	1017.8	1086.3	5.27
36		685.8	1141.1	1217.9	5.91
38	1-1/2	764.1	1271.4	1357.0	6.59
40		846.6	1408.8	1503.6	7.30
42	1 5/8	933.4	1553.1	1657.7	8.05
44		1024.4	1704.6	1819.3	8.83
46		1119.6	1863.1	1988.5	9.65
48	1 7/8	1219.1	2028.6	2165.1	10.51
50		1322.8	2201.2	2349.3	11.41
52		1430.8	2380.8	2541.0	12.34
54	2 1/8	1542.9	2567.5	2740.3	13.30
56		1659.3	2761.2	2947.0	14.31
58	2 1/4	1780.0	2961.9	3161.3	15.35
60		1904.9	3169.7	3383.0	16.42
62		2034.0	3384.5	3612.3	17.54
64		2167.3	3606.4	3849.1	18.69

• Available Right and Left hand - Standard Regular lay (Lang lay on request)

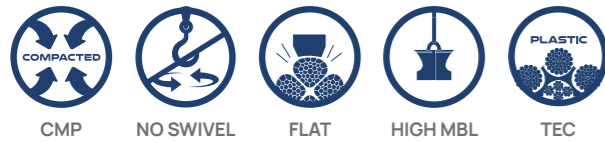
POWERTEC 8S



PRODUCT DETAILS

- Excellent life time & very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required

PROPERTIES



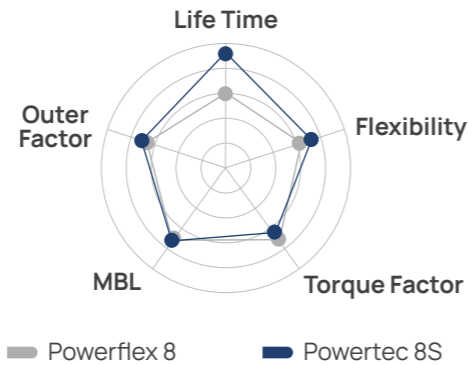
- Eco-friendly grease applicable.



POWERTEC 8S

Type	K8 X K19S/K26WS/K36WS + EPKIWRC
Size	8mm ~ 52mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.726
Elastic modulus	115,000N/mm ² ± 5,000N/mm ²

Rope Size (mm)	Recommended Construction	Number of load bearing wires
8 - 20	8xK19S	152
21 - 38	8xK26WS	208
40 - 52	8xK36WS	288



APPLICATIONS

Container Crane
Boom Hoist
Over Head Crane

Offshore Crane
Mobile Harbor Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 8" which doesn't have plastic layer.

POWERTEC 8S

Wire Rope discard : ISO 4309 RCN 09 for K8 x K26WS + EPKIWRC

* d = nominal diameter of rope

Single Layer Drum	
Ordinary lay	Lang lay
9 Broken wires in (6d*)	4 Broken wires in (6d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)

Multi Layer Drum	
Ordinary lay & Lang lay	
18 Broken wires in (6d*)	36 Broken wires in (30d*)

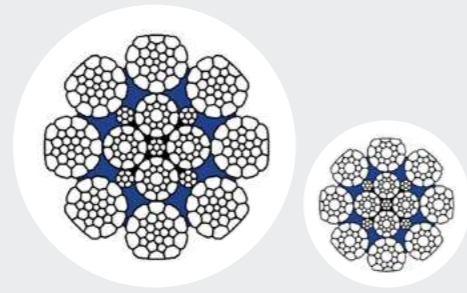
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended.
Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		DSR SPEC			Approx Weight
		Cross section area	Minimum Breaking Load (kN)		
			200 kg/mm ² 1960 N/mm ²	220 kg/mm ² 2160N/mm ²	
mm	inch	mm ²			
8	5/16	36.5	60.1	64.4	0.322
9		46.2	76.0	81.5	0.407
9.5	3/8	51.5	84.7	90.8	0.454
10		57.0	93.9	100.6	0.503
11	7/16	69.0	113.6	121.7	0.608
12		82.1	135.2	144.8	0.724
12.7	1/2	92.0	151.4	162.2	0.811
13		96.4	158.6	170.0	0.850
14		112	184.0	197.1	0.99
14.3	9/16	117	192.0	205.7	1.03
15		128	211.2	226.3	1.13
16	5/8	146	240.3	257.5	1.29
17.5	11/16	175	287.5	308.0	1.54
18		185	304.2	325.9	1.63
19	3/4	206	338.9	363.1	1.81
20		228	375.5	402.3	2.01
22	7/8	276	454.4	486.8	2.43
24		328	540.7	579.3	2.90
25		356	586.7	628.6	3.14
25.4	1	368	605.6	648.9	3.24
26		385	634.6	679.9	3.40
28		447	736.0	788.5	3.94
28.6	1-1/8	466	767.9	822.7	4.11
30		513	844.9	905.2	4.52
32	1-1/4	584	961.3	1029.9	5.15
34		659	1085.2	1162.7	5.81
35	1-3/8	698	1150.0	1232.1	6.16
36		739	1216.6	1303.5	6.51
38		823	1355.6	1452.4	7.26
39		867	1427.8	1529.8	7.65
40		912	1502.0	1609.3	8.04
42	1-5/8	1006	1656.0	1774.2	8.87
44		1104	1817.4	1947.2	9.73
44.5	1-3/4	1129	1859.0	1991.7	9.95
46		1207	1986.4	2128.3	10.64
48	1-7/8	1314	2162.9	2317.4	11.58
50.8	2	1471	2422.6	2595.6	12.97
52		1542	2538.4	2719.7	13.59

- Available Right and Left hand - Standard Regular lay (Lang lay on request)

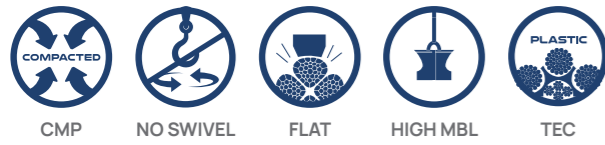
POWERTEC 8S PLUS



PRODUCT DETAILS

- Excellent life time & very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required

PROPERTIES



- Eco-friendly grease applicable.



POWERTEC 8S PLUS

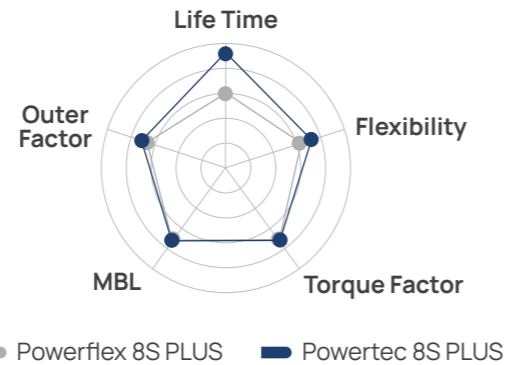
Type	K8 x K19S/K26WS/K36WS + EPKIWRC
Size	6mm ~ 52mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.765
Elastic modulus	120,000N/mm ² ± 5,000N/mm ²

Powetec 8S PLUS from 6 to 8mm will have the core with 7xK7

APPLICATIONS

- Container Crane
- Offshore Crane
- Boom Hoist
- Harbor Crane
- Over Head Crane
- Mobile Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 8 plus" which doesn't have plastic layer.



POWERTEC 8S PLUS

Wire Rope discard : ISO 4309 RCN 09 for K8 x K26WS + EPKIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

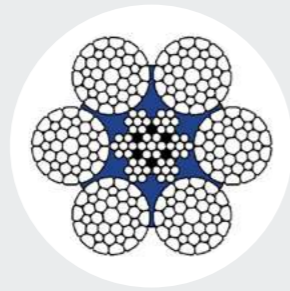
SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area	DSR SPEC		Approx Weight
			Minimum Breaking Load (kN)		
mm	inch	mm ²	200 kg/mm ² 1960 N/mm ²	220 kg/mm ² 2160N/mm ²	kg/m
8		38.5	63.3	67.9	0.337
9		48.7	80.2	85.9	0.426
9.5	3/8	54.2	89.3	95.7	0.475
10		60.1	99.0	106.0	0.526
11	7/16	72.7	119.7	128.3	0.636
12		86.5	142.5	152.7	0.757
12.7	1/2	97	159.6	171.0	0.848
13		102	167.2	179.2	0.889
14		118	194.0	207.8	1.03
14.3	9/16	123	202.4	216.8	1.08
15		135	222.6	238.6	1.18
16	5/8	154	253.3	271.4	1.35
17.5	11/16	184	303.0	324.7	1.61
18		195	320.6	343.5	1.70
19	3/4	217	357.2	382.7	1.90
20		240	395.8	424.1	2.10
22	7/8	291	478.9	513.2	2.55
24		346	570.0	610.7	3.03
25		376	618.5	662.6	3.29
25.4	1	388	638.4	684.0	3.39
26		406	668.9	716.7	3.55
28		471	775.8	831.2	4.12
28.6	1-1/8	492	809.4	867.2	4.30
30		541	890.6	954.2	4.73
32	1-1/4	615	1013.3	1085.7	5.39
34		695	1143.9	1225.6	6.08
35	1-3/8	736	1212.2	1298.8	6.44
36		779	1282.5	1374.1	6.82
38		868	1428.9	1531.0	7.59
39		914	1505.1	1612.6	8.00
40		962	1583.3	1696.4	8.41
42	1-5/8	1060	1745.6	1870.2	9.28
44		1164	1915.8	2052.6	10.18
44.5	1-3/4	1190	1959.6	2099.5	10.41
46		1272	2093.9	2243.4	11.13
48	1-7/8	1385	2279.9	2442.8	12.12
50.8	2	1551	2553.7	2736.1	13.57
52		1625	2675.7	2866.9	14.22

- Available Right and Left hand - Standard Regular lay (Lang lay on request)

POWERTEC 6



PRODUCT DETAILS

- Excellent life time
- High breaking load
- Good resistance of abrasion
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave

PROPERTIES



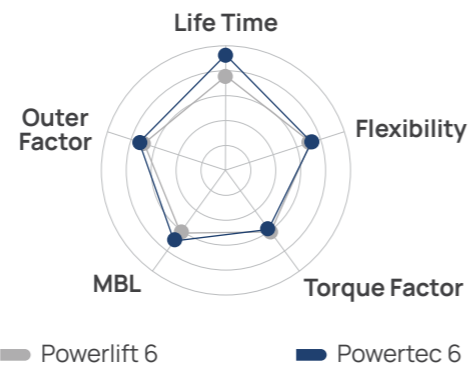
- Eco-friendly grease applicable.



Rope Size (mm)	Recommended Construction	Number of load bearing wires
6 - 12	6xK26WS	156
13 - 22	6xK31WS	186
24 - 52	6xK36WS	216

POWERTEC 6

Type	6 x K(26/31/36)WS + EPIWRC
Size	6mm ~ 52mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.679
Elastic modulus	107,000N/mm ² ± 5,000N/mm ²



APPLICATIONS

- Container Crane
- Boom Hoist
- Offshore Crane
- Mobile Harbor Crane
- Over Head Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 6" which doesn't have plastic layer.

POWERTEC 6

Wire Rope discard : ISO 4309 RCN. 09 for 6 x K36WS + EPIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

SHEAVE GROOVE DIAMETER

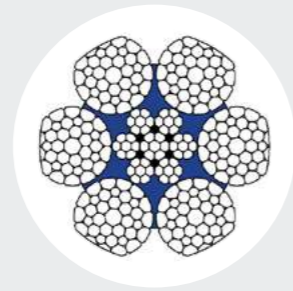
Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended.

Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area mm ²	DSR SPEC Minimum Breaking Load (kN)			Approx Weight kg/m
mm	inch		1770 N/mm ²	1960 N/mm ²	2160N/mm ²	
6		19.3	28.4	31.0	33.3	0.17
6.4	1/4	21.9	32.3	35.3	37.9	0.19
8	5/16	34.3	50.4	55.1	59.2	0.30
9		43.4	63.8	69.7	74.9	0.38
10		53.5	78.8	86.1	92.5	0.47
11		64.8	95.4	104.2	112.0	0.57
12		77.1	113.5	124.0	133.2	0.67
13		90.5	133.2	145.5	156.4	0.79
14		104.9	154.5	168.8	181.3	0.92
14.3	9/16	109.5	161.2	176.1	189.2	0.96
15		120.5	177.3	193.7	208.2	1.05
16	5/8	137.1	201.8	220.4	236.9	1.20
17.5	11/16	164.0	241.4	263.7	283.3	1.43
18		173.5	255.4	279.0	299.8	1.51
19		193.3	284.5	310.8	334.0	1.69
20		214.2	315.3	344.4	370.1	1.87
21	13/16	236.1	347.6	379.7	408.0	2.06
22		259.1	381.5	416.7	447.8	2.26
22.2	7/8	263.9	388.4	424.3	456.0	2.30
23		283.2	416.9	455.5	489.4	2.47
24	15/16	308.4	454.0	495.9	532.9	2.69
25		334.6	492.6	538.1	578.3	2.92
25.4	1	345.4	508.5	555.5	596.9	3.01
26		362.0	532.8	582.0	625.4	3.16
28		419.8	617.9	675.0	725.4	3.66
28.6	1-1/8	438.0	644.7	704.2	756.8	3.82
30	1-3/16	481.9	709.3	774.9	832.7	4.20
31.8	1-1/4	541.4	797.0	870.6	935.6	4.72
32		548.3	807.1	881.6	947.4	4.78
34		619.0	911.1	995.3	1069.6	5.40
36		693.9	1021.4	1115.8	1199.1	6.05
38	1-1/2	773.2	1138.1	1243.2	1336.0	6.74
40		856.7	1261.0	1377.6	1480.4	7.47
42		944.5	1390.3	1518.8	1632.1	8.24
44		1036.6	1525.9	1666.8	1791.2	9.04
46		1133.0	1667.7	1821.8	1957.8	9.88
48		1233.6	1815.9	1983.7	2131.7	10.76
50		1338.6	1970.4	2152.4	2313.1	11.68
52		1447.8	2131.2	2328.1	2501.8	12.63

- Available Right and Left hand - Standard Regular lay (Lang lay on request)

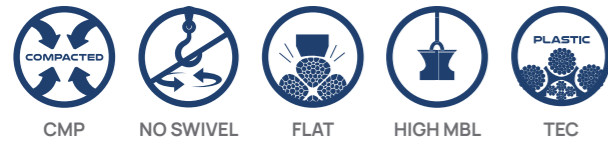
POWERTEC 6S



PRODUCT DETAILS

- Excellent life time
- Very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required

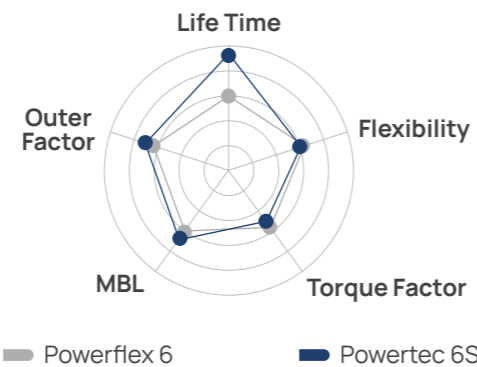
PROPERTIES



- Eco-friendly grease applicable.



Rope Size(mm)	Recommended Construction	Number of load bearing wires
6 - 12	6xK26WS	156
13 - 22	6xK31WS	186
24 - 52	6xK36WS	216



POWERTEC 6S

Type	K6 X K(26/31/36)WS + EPKIWRC
Size	6mm - 52mm
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.744
Elastic modulus	115,000N/mm ² ± 5,000N/mm ²

APPLICATIONS

- Container Crane
- Mobile Harbor Crane
- Boom Hoist
- Riser Tensioners
- Over Head Crane
- Drilling Operations
- Offshore Crane

- If the inner plastic layer is not needed as customer's request, DSR can supply "Powerflex 6S" which doesn't have plastic layer.

POWERTEC 6S

Wire Rope discard : ISO 4309 RCN. 09 for K6 x K36WS + EPKIWRC

* d = nominal diameter of rope

Single Layer Drum		Multi Layer Drum	
Ordinary lay	Lang lay	Ordinary lay & Lang lay	
9 Broken wires in (6d*)	4 Broken wires in (6d*)	18 Broken wires in (6d*)	36 Broken wires in (30d*)
18 Broken wires in (30d*)	9 Broken wires in (30d*)		

SHEAVE GROOVE DIAMETER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended.

Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

Nominal Dia		Cross section area mm ²	DSR SPEC Minimum Breaking Load (kN)		Approx Weight kg/m
mm	inch		1960 N/mm ²	2160N/mm ²	
6		21.0	33.0	35.4	0.18
6.4	1/4	23.9	37.6	40.3	0.21
8	5/16	37.4	58.7	63.0	0.33
9		47.3	74.3	79.7	0.41
10		58.4	91.7	98.4	0.51
11		70.7	111.0	119.1	0.62
12		84.1	132.1	141.7	0.73
13		98.7	155.0	166.3	0.86
14		114.5	179.8	192.9	1.00
14.3	9/16	119.4	187.6	201.2	1.04
15		131.4	206.4	221.4	1.15
16	5/8	149.5	234.8	251.9	1.30
17.5	11/16	178.9	280.9	301.4	1.56
18		189.2	297.2	318.8	1.65
19		210.9	331.1	355.2	1.84
20		233.6	366.9	393.6	2.04
21	13/16	257.6	404.5	434.0	2.25
22		282.7	443.9	476.3	2.47
22.2	7/8	287.9	452.1	485.0	2.51
23		309.0	485.2	520.6	2.70
24	15/16	336.4	528.3	566.8	2.93
25		365.1	573.3	615.0	3.18
25.4	1	376.8	591.8	634.9	3.29
26		394.8	620.1	665.2	3.44
28		457.9	719.1	771.5	3.99
28.6	1-1/8	477.8	750.3	804.9	4.17
30	1-3/16	525.7	825.5	885.6	4.59
31.8	1-1/4	590.7	927.6	995.1	5.15
32		598.1	939.3	1007.7	5.22
34		675.2	1060.3	1137.5	5.89
36		757.0	1188.8	1275.3	6.60
38	1-1/2	843.4	1324.5	1421.0	7.36
40		934.5	1467.6	1574.5	8.15
42		1030.3	1618.0	1735.8	8.99
44		1130.8	1775.8	1905.1	9.86
46		1235.9	1940.9	2082.2	10.78
48		1345.7	2113.3	2267.2	11.74
50		1460.2	2293.1	2460.1	12.74
52		1579.4	2480.2	2660.8	13.78

• Available Right and Left hand - Standard Regular lay (Lang lay on request)