

High Performance Mining Winch Lines

as strong as steel but 70% lighter

Miners can now safely replace their steel wire rope winch and belt pulling applications with Cortland's braided synthetic rope products. Cortland's ropes and slings offer a safer, more productive means of winching long wall shields with scoop trucks, and pulling multiple feet of belt back together on the belt line. No more back and "fish-hook" handling injuries, rust, corrosion grease and re-lubing, worries of crushed or deformed wire strands. Cortland's torque-free braided ropes and slings do the job better than a wire rope. They will also make for a safer working environment, ensuring today's miners make it home to their families.

Cortland's high performance rope winch lines spool evenly and provide greater pulling power than traditional heavy wire rope winch lines. In size-for-size comparison, Cortland's rope products are stronger than wire ropes. No more worries about wire rope kinks or "bird caging". Cortland's braided rope slings are more durable and cut resistant than conventional fiber round slings.

Cortland's HMPE braided ropes offer the highest strength to weight ratio of any synthetic fiber rope. Manufactured from high performance High Modulus PolyEthylene (HMPE) fiber, HMPE produces a rope that offers very high strength with very low stretch or elongation.

Trust Cortland for proven rope performance to increase productivity, efficiency and ultimately profitability.

Features

- Equal or greater strength for wire SIZE FOR SIZE
- Significantly lighter than wire, reducing handling weight and lifting related injuries
- Reduced risk of recoil if failures should occur
- Easier on hands than wire rope—increasing user safety
- RFID capability
- Cortland slings are tag-certified to ASME B30.9 rope lifting standards

Benefits

- Increased productivity
- Increased efficiency
- Safer operations
- Ultimately, increased profitability

CORTLAND®

High Performance Mining Winch Lines

Plasma® 12-Strand Winch Lines

Plasma® 12-Strand Winch Lines				Steel Wire Rope (6x19 or 6x36 IPS)		
Dia. Size	Wt. / foot (lbs.)	MBS (lbs.)	WLL (@5:1)	Dia. Size	Wt. / foot (lbs.)	MBS (lbs.)
5/8"	0.106	51,400	10,280	**5/8"**	0.66	33,400
3/4"	0.133	68,500	13,700	**3/4"**	0.95	47,600
13/16"	0.159	74,000	14,800			
7/8"	0.196	92,600	18,520	**7/8"**	1.29	64,400
1"	0.234	110,000	22,000	**1"**	1.68	83,600
1-1/8"	0.319	147,000	29,400	**1-1/8"**	2.13	105,200
1-1/4"	0.362	165,000	33,000	**1-1/4"**	2.63	129,200
1-5/16"	0.417	196,000	39,200			
1-1/2"	0.517	221,000	44,200	**1-1/2"**	3.78	184,000

Plasma® specifications are based on splice-terminated ropes.
Plasma® 12-Strand winch lines are available in bulk lengths on reels or in cartons, or splice-fabricated to order
Wire rope specifications based on Wire Rope Sling User's Manual – Third Edition – Wire Rope Technical Board

Endless Loop Fabrication Plasma® 12-Strand Bridle Slings

Plasma® 12 Strand rope fabricated into an endless loop sling. Entire sling is encased in a braided synthetic fiber wear-protection covering; either Cortland SX (HMPE) or polyester. Each sling is tag-certified.

Specifications		Sling Rated Capacities @ 5:1 WLL (lbs.)
Dia. Size	MBS	Vertical
5/8"	84,810	16,900
3/4"	113,025	22,600
13/16"	122,100	24,400
7/8"	152,790	30,500
1"	181,500	36,300
1-1/8"	242,550	48,500
1-1/4"	272,225	54,400
1-5/16"	323,400	64,000
1-1/2"	364,650	72,000

Plasma® specifications are based on endless loop (grommet) fabrication using one end-for-end splice.
Plasma® endless loop (grommet) lifting slings conform to ASME B30.9 Synthetic Rope Lifting Sling Standards.
Standard truck bridle length is 14' OAL (overall length)