

Dynamic Ropes

Name	Diameter	Type	UIAA Falls	Impact Force	Static Elong.	Dynamic Elong.	Sheath Slippage	Weight (gr/M)	UIAA	CE	Sport	Trad	Top Roping	Ice	Mixed	Alpine	Big Wall	Guiding			
Marathon																					
Half	8.8mm	Ⓜ	9	6.1kN	11.0%	32.8%	0mm	48	✓	✓	n/a	***	n/a	***	***	***	n/a	***			
Pro**	10.1mm	①	6	8.6kN	8.4%	35.3%	0mm	63	✓	✓	***	**	**	***	**	**	*	**			
Sport	10.4mm	①	7	9.3kN	8.4%	29.4%	0mm	69	✓	✓	***	***	***	**	**	**	**	**			
Ultra*	10.7mm	①	8	8.6kN	9.0%	36.1%	0mm	70	✓	✓	*	***	***	**	**	**	***	***			
Mega	11.0mm	①	9	8.7kN	9.4%	30.8%	15mm	79	✓	✓	n/a	*	***	n/a	n/a	n/a	*	*			
Evolution																					
Ice Thong	7.7mm	Ⓞ	12	10.6kN	7.8%	28.1%	0mm	40	✓	✓	n/a	*	n/a	**	**	**	n/a	**			
Duetto	8.4mm	Ⓜ	6	6.5kN	11.0%	31.6%	0mm	45	✓	✓	***	**	*	**	*	*	n/a	**			
Velocity	9.8mm	①	6	8.8kN	8.6%	26.4%	0mm	62	✓	✓	***	***	*	***	**	**	*	**			
Kosmos	10.2mm	①	8	8.8kN	7.6%	31.1%	0mm	67	✓	✓	***	***	**	**	**	**	**	**			
Fusion																					
Nano	9.2mm	① ②	6	8.5kN	7.5%	32.5%	0mm	52	✓	✓	***	*	n/a	***	***	***	n/a	**			
Nano <small>tested as half</small>	9.2mm	① ②	>20	6.4kN	7.5%	32.7%	0mm	53	✓	✓	***	*	n/a	***	***	***	n/a	**			
Ion ²	9.4mm	①	5	8.1kN	9.5%	35.7%	0mm	57	✓	✓	***	***	n/a	***	**	**	n/a	**			
Gym ropes																					
Slim Gym	10.1mm	①	6	8.6kN	8.4%	35.5%	0mm	63	✓	✓	***		**								
Rock Gym	10.4mm	①	8	8.5kN	8.1%	33.2%	0mm	69	✓	✓	**		***								
Big Gym	10.7mm	①	8	8.6kN	9.0%	36.1%	0mm	70	✓	✓	**		***								
10mm SafetyPro	10.0mm	Static	n/a	n/a	n/a	n/a	0mm	62.5	n/a	✓	n/a		***	Not for lead climbing!							
10.5 SafetyPro	10.5mm	Static	n/a	n/a	n/a	n/a	0mm	70.4	n/a	✓	n/a		***	Not for lead climbing!							
11mm SafetyPro	11.0mm	Static	n/a	n/a	n/a	n/a	0mm	76.6	n/a	✓	n/a		***	Not for lead climbing!							
AT ropes																					
Duetto	8.4mm	Ⓜ	6	6.5kN	11.0%	31.6%	0mm	45	✓	✓	***	**	*	**	*	*	n/a	**			
Half	8.8mm	Ⓜ	9	6.1kN	11.0%	32.8%	0mm	48	✓	✓	n/a	***	n/a	***	***	***	n/a	***			
Nano	9.2mm	① ②	6	8.4kN	7.5%	32.0%	0mm	53	✓	✓	***	*	n/a	***	***	***	n/a	**			

*Marathon lanyards are sewn using the Ultra and have an MBS of 4,619 lbs (20.5kN)

** Y-Knot lanyard is sewn using the Pro and has an MBS of 4,340 lbs (19.0kN)

Webbing

Product	Straight	Sewn Slings	Rabbit Runner	Daisy Chain	Dog Bones
10mm Dyneema	n/a	4,945 (22.0)	n/a	n/a	4,945 (22.0)
1/2" Dyneema	n/a	4,945 (22.0)	3,282 (14.6)	n/a	4,675 (20.8)
11/16" Nylon	2,989 (13.3)	5,957 (26.5)	n/a	3,079 (13.7)	3,799 (16.9)
3/4" Nylon	n/a	n/a	n/a	n/a	4,945 (22.0)
1" Mil-Spec Nylon	4,000 (17.8)	6,137 (27.3)	n/a	n/a	n/a
1" TechTape Nylon	4,383 (19.5)	4,945 (22.0)	n/a	n/a	n/a
1" 9800 Flat Nylon	9,778 (43.5)	11,352 (50.5)	8,992 (40.0)	n/a	n/a
1" Type 18 Flat Nylon	6,000 (26.7)	n/a	n/a	n/a	n/a

Specialty Sewn Webbing

Chain Reactor	3,934 (17.5)
ZipLink	4,945 (22.0)
QuickDRAW*	4,945 (22.0)

*The QuickDRAW is tested without carabiners.

specifications

Static Ropes

Diameter (inches)	Diameter (millimeters)	MBS lb.	MBS kN	Weight (lb./100')	Elong. (10% of MBS)	Elong. (300 lbs.)	SWL (10:1)	NFPA 1983, 2006	CE
SuperStatic									
5/16"	9mm	4,508	20.0	3.8	4.7%	2.8%	490 lbs.	no	no
3/8"	10mm	4,945	22.0	4.7	7.6%	4.2%	379 lbs.	✓	✓
7/16"	11.5mm	6,744	30.0	6.0	6.0%	3.1%	674 lbs.	✓	✓
1/2"	13mm	9,239	41.1	7.9	7.7%	3.0%	923 lbs.	✓	✓
5/8"	15.5mm	10,700	47.6	10.3	4.3%	0.8%	1,070 lbs.	✓	✓
HTP									
5/16"	9mm	5,192	23.1	4.2	2.6%	1.6%	519 lbs.	✓	✓
3/8"	10mm	5,979	26.6	5.3	1.7%	1.0%	597 lbs.	✓	✓
7/16"	11mm	7,665	34.1	6.5	2.9%	1.7%	766 lbs.	✓	✓
1/2"	13mm	9,081	40.4	8.0	2.0%	0.8%	908 lbs.	✓	✓
5/8"	16mm	11,959	53.2	12.5	1.8%	0.9%	1,195 lbs.	✓	✓

Big Wall	Expeditions	Caving
★★	★★	★
★★★	★★★	★★★
★★★	★★★	★★★
★	★	★★
n/a	n/a	n/a
★★★	★★★	★★★
★★★	★★★	★★★
★★★	★★★	★★★
★	★	★★
n/a	n/a	n/a

Rating System

- ① Single Rope
- ② Half Rope
- ③ Twin Rope

★★★ The recommended top choice.

★★ A good choice.

★ Can be used but not the best choice.

n/a Not recommended either for its diameter, rope type, or that other ropes are a better choice.

Disclaimer

Rope choices are a matter of personal experience, application, technical climbing ability, and/or resources. Our recommendations are to be used as a guide only. Your final rope choice is your responsibility.

SafetyPro

Diameter (millimeters)	EN 1891 Type	CE	Static Strength	Factor 1 Falls Held	Impact Force (at fall factor 0.3)	Elongation (50kg to 150kg)	Static Strength (with Figure-8 knot)	Sheath Slippage	Weight per Meter	Sheath Percent.	Shrinkage in Water	Material
10mm	A	✓	28.3 kN	>5	5.5 kN	3.2%	19.1 kN	0.3%	62.5 g/m	40.3%	2.9%	Polyamide (Nylon)
10.5mm	A	✓	27.2 kN	>5	5.5 kN	3.5%	18.8 kN	0.8%	70.4 g/m	46.6%	2.5%	Polyamide (Nylon)
11mm	A	✓	35.7 kN	>5	5.8 kN	3.0%	23.4 kN	0.6%	76.6 g/m	45.3%	2.3%	Polyamide (Nylon)

Water Ropes

Diameter (inches)	Diameter (millimeters)	MBS lb.	MBS kN	Weight (lb./100')	Elong. (300 lbs.)	NFPA 1983, 2006	CE
WaterLine							
5/16"	8.0mm	1,600	7.1	2.1	7.0%	no	no
3/8"	9.5mm	3,417	15.2	3.3	4.2%	✓	✓
7/16"	11.1mm	4,400	19.5	4.3	2.6%	no	no
1/2"	12.5mm	6,100	27.1	5.2	1.8%	no	no
GrabLine							
3/8"	9.5mm	3,282	14.6	3.1	4.2%	✓	✓
UltraLine							
1/4"	6.5mm	2,608	11.6	1.3	1.4%	no	no
3/8"	9.5mm	5,261	23.4	3.8	1.2%	✓	✓

Canyon Ropes

Name	Diameter (millimeters)	Diameter (inches)	MBS lb.	MBS kN	Weight (lb./100')	Elong. (300 lbs.)	CE
CanyonTech	9mm	5/16"	5,979	26.6	4.2	2.4%	no
Canyon C-IV	9mm	5/16"	4,653	20.7	3.2	2.0%	no
9mm HTP	9mm	5/16"	5,058	22.5	4.2	1.3%	✓
RIT 500	8mm	5/16"	5,486	24.4	3.2	6.1%	✓

Accessory Cords

Diameter	Nylon MBS lbs.	Nylon MBS kN	Polyester MBS lbs.	Polyester MBS kN	CE EN 564	Sewn** MBS lbs.	Sewn** MBS kN
2mm	224	1.0	n/a	n/a	n/a	n/a	n/a
2.75mm	269	1.2	n/a	n/a	n/a	n/a	n/a
3mm	472	2.1	517	2.3	n/a	n/a	n/a
4mm	1,034	4.6	1,056	4.8	n/a	n/a	n/a
5mm	1,168	5.2	1,059	4.7	✓	n/a	n/a
6mm	1,978	8.8	n/a	n/a	✓	2,899	12.9
6mm PC	4,271*	19.0	n/a	n/a	✓	4,540	20.2
6mm XTec	4,720*	21.0	n/a	n/a	n/a	n/a	n/a
6mm TRC	3,484*	15.5	n/a	n/a	n/a	n/a	n/a
7mm	2,787	12.4	n/a	n/a	✓	4,923	21.9
8mm	3,934	17.5	n/a	n/a	✓	5,889	26.2
8mm Prusik	3,259	14.5	n/a	n/a	n/a	5,305	23.6
9mm	3,057	13.6	n/a	n/a	n/a	5,912	26.3

*The 6mm PC (PowerCord) is a nylon sheath with Technora core, XTec is 100% Technora and TRC is Technora sheath with a nylon core.

**Sewn numbers refer to sewn loop and boundloop products. For more information about other sewn patterns, such as sewn eyes, please call 800.788.7673