

Unitrex



Unitrex XS Max Wear, Uniline’s high-tech cousin, is a parallel-core rope of Ultra High Molecular Weight Polyethylene (UHMWPE), wrapped with a neoprene tape and over-braided with a tough jacket of high-tenacity polyester. The result is a synthetic cable, somewhat stiffer than your usual rope, which is much like wire in its stretch characteristics.

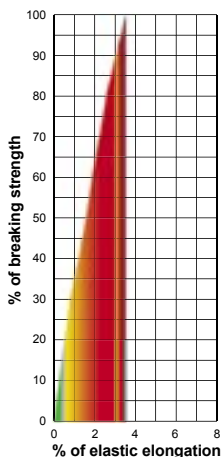
Unlike wire, Unitrex is much lighter and easily handled. Due to its toughness, we are comfortable assigning it a higher working load rating, which is 25% of its breaking strength.

Unitrex XS Max Wear has high strength retention in service, which is supported by field studies and our long-standing track record with Uniline polyester. Unitrex’s tough rubber layer protects its UHMWPE core, and the outer jacket is saturated with urethane, making it the toughest UHMWPE rope you can buy. All of Yale’s parallel-core ropes are torque free, with bonded cores preventing contamination of the internal strength member. Unitrex XS can be quickly terminated and/or joined with a TechEye2 or TechJoin2.

Diameter Inches	Diameter mm	Weight Lbs/100ft	Weight Kg/100m	Average Spliced Break Strength* Lbs	Average Spliced Break Strength* Kg	Minimum Spliced Break Strength* Lbs	Minimum Spliced Break Strength* Kg	Maximum** Work Load 5:1 Lbs	Maximum** Work Load 5:1 Kg
0.44	11	6.7	10.0	20,000	9,080	18,000	8,172	5,000	2,270
0.53	13	9.2	13.7	26,000	11,800	23,400	10,620	6,500	2,950
0.58	15	11.4	17.0	34,000	15,435	30,600	13,892	8,500	3,859
0.63	16	13.5	20.1	42,500	19,295	38,250	17,366	10,625	4,824
0.71	18	16.9	25.2	50,500	22,925	45,450	20,633	12,625	5,731
0.84	21	24.2	36.0	73,500	33,365	66,150	30,029	18,375	8,341
1.00	25	32.4	48.2	100,000	45,400	90,000	40,860	25,000	11,350
1.15	29	42.4	63.1	125,000	56,750	112,500	51,075	31,250	14,188
1.25	32	52.5	78.2	158,000	71,730	142,200	64,557	39,500	17,933
1.40	36	64.9	96.6	195,000	88,530	175,500	79,677	48,750	22,133
1.75	44	92.6	137.9	264,000	119,855	237,600	107,870	66,000	29,964
1.94	49	98.8	147.1	310,000	140,740	279,000	126,666	77,500	35,185
1.99	51	113.3	168.7	360,000	163,440	324,000	147,096	90,000	40,860
2.20	56	144.0	214.4	430,000	195,220	387,000	175,698	107,500	48,805

* Knots and abrupt bends significantly reduce the strength of all ropes and lower maximum working load.

** Working load is based on static or moderately dynamic lifting/pulling operations. Instantaneous changes in load, up or down, in excess or 10% of the rope’s related working load constitute hazardous shock load and would void the normal working-load recommendation. Consult Yale Cordage for guidelines for working loads and the safe use of rope.



Energy Absorption

The colored area under the curve represents the rope’s ability to do “work” and is expressed in foot-pounds per pound of rope in tension.

- Green working 247 ft. lbs./lb.
- Red ultimate 6,893 ft. lbs./lb.

Dielectric Strength: The maximum allowable leakage for clean, dry Unitrex is 50 micro-amperes when tested at 100kV per Yale Method 712-1701 Rev 1 “Routine Production Test”. Absorbed and entrained moisture or impurities will increase rope’s conductivity dramatically.

Approved Splice Technique: #10018010, #10018008.

- Maximum Working Load
- Minimum Break Strength
- Average Break Strength

Specific Gravity: 1.10