

12-STRAND

AMSTEEL®

Twelve - Strand

Product Code: 815 (Samthane™ coated grey) ▲▲



12-Strand
HMWPE Fiber

High molecular weight polyethylene (HMWPE) fibers and the processing of them into rope constructions has gone through various evolutions of development during the recent past. Our plying and braiding tension control procedures now allow us to offer an HMWPE braid that maximizes strand wear life and product strength while minimizing stretch. Due to slight but constant process and product improvements we have chosen to rename an already proven product to better reflect the company that produces it and its physical capabilities. **Spectron 12™ has now been renamed AmSteel®** to represent the American Group and the strength of steel the product yields.

AmSteel® is a twelve-strand braided rope of tension-set Parallay™ construction of HMWPE fiber with our proprietary Samthane™ urethane coating. It is a non-rotational rope that yields extremely high strength and low stretch equivalent to wire rope with seven times less weight. Combined with its flex-fatigue and service life durability, AmSteel® outlasts wire rope and has none of the handling and safety issues associated with wire rope.

CHARACTERISTICS

- Extremely high strength & low stretch
- Lightweight and flexible
- Superior wear life
- Accommodates 8: 1 D/d sheave ratio
- Excellent dielectric properties

APPLICATIONS

- Mooring Lines
- Face and Wing Wires
- Tug Assist Lines
- Winch Lines
- Pulling Lines
- Specialty Rigging Lines
- Wire Rope Replacement

Fiber Content: HMWPE Fiber
Specific Gravity:98 (Floats)

Elastic Elongation
at Percentage of Break Strength:

| | | |
|------|------|------|
| 10% | 20% | 30% |
| 0.58 | 0.87 | 0.96 |

Water Absorption Fiber:
..... None

| AMSTEEL | | | | | | | | | |
|-----------|---------|------------|----------|-----------------|--------------|------------------|---------|------------------|---------|
| SIZE | | | | WEIGHT | | AVERAGE STRENGTH | | MINIMUM STRENGTH | |
| Dia. Inch | Dia. mm | Circ. Inch | Circ. mm | Lbs per 100 Ft. | Kg per 100 M | Lbs | Kg | Lbs | Kg |
| 7/64" | 2.5 | 5/16" | 7.5 | 0.33 | 0.49 | 1,200 | 544 | 1,080 | 490 |
| 1/8" | 3 | 3/8" | 9 | 0.53 | 0.79 | 1,800 | 816 | 1,600 | 726 |
| 3/16" | 5 | 9/16" | 15 | 1.04 | 1.55 | 3,800 | 1,724 | 3,400 | 1,542 |
| 1/4" | 6 | 3/4" | 18 | 1.60 | 2.38 | 6,600 | 2,994 | 5,900 | 2,676 |
| 5/16" | 8 | 1" | 24 | 2.65 | 3.94 | 9,800 | 4,445 | 8,800 | 3,992 |
| 3/8" | 9 | 1-1/8" | 27 | 3.71 | 5.52 | 14,100 | 6,396 | 12,700 | 5,761 |
| 7/16" | 11 | 1-1/4" | 33 | 4.23 | 6.30 | 16,500 | 7,484 | 14,800 | 6,713 |
| 1/2" | 12 | 1-1/2" | 36 | 6.35 | 9.45 | 25,000 | 11,340 | 22,500 | 10,206 |
| 9/16" | 14 | 1-3/4" | 42 | 7.90 | 11.76 | 30,800 | 13,971 | 27,700 | 12,565 |
| 5/8" | 16 | 2" | 48 | 10.61 | 15.79 | 40,700 | 18,462 | 36,600 | 16,602 |
| 3/4" | 18 | 2-1/4" | 54 | 13.31 | 19.81 | 48,000 | 21,773 | 43,200 | 19,596 |
| 13/16" | 20 | 2-1/2" | 60 | 15.84 | 23.57 | 56,500 | 25,628 | 50,800 | 23,043 |
| 7/8" | 22 | 2-3/4" | 66 | 19.61 | 29.18 | 67,800 | 30,754 | 61,000 | 27,670 |
| 1" | 24 | 3" | 72 | 23.43 | 34.87 | 80,000 | 36,288 | 72,000 | 32,659 |
| 1-1/16" | 26 | 3-1/4" | 78 | 27.53 | 40.97 | 90,000 | 40,824 | 81,000 | 36,742 |
| 1-1/8" | 28 | 3-1/2" | 84 | 31.86 | 47.41 | 102,000 | 46,267 | 91,800 | 41,640 |
| 1-1/4" | 30 | 3-3/4" | 90 | 36.23 | 53.92 | 114,000 | 51,710 | 102,600 | 46,539 |
| 1-5/16" | 32 | 4" | 96 | 41.71 | 62.07 | 127,000 | 57,607 | 114,300 | 51,846 |
| 1-1/2" | 36 | 4-1/2" | 108 | 51.70 | 76.94 | 157,000 | 71,215 | 141,300 | 64,094 |
| 1-5/8" | 40 | 5" | 120 | 65.72 | 97.80 | 186,000 | 84,370 | 167,400 | 75,933 |
| 1-3/4" | 44 | 5-1/2" | 132 | 78.35 | 116.60 | 220,000 | 99,792 | 198,000 | 89,813 |
| 2" | 48 | 6" | 144 | 91.40 | 136.02 | 250,000 | 113,400 | 225,000 | 102,060 |
| 2-1/8" | 52 | 6-1/2" | 156 | 109.00 | 162.21 | 300,000 | 136,080 | 270,000 | 122,472 |
| 2-1/4" | 56 | 7" | 168 | 122.00 | 181.56 | 353,000 | 160,121 | 317,700 | 144,109 |
| 2-1/2" | 60 | 7-1/2" | 180 | 148.00 | 220.25 | 400,000 | 181,440 | 360,000 | 163,296 |
| 2-5/8" | 64 | 8" | 192 | 167.00 | 248.53 | 450,000 | 204,120 | 405,000 | 183,708 |
| 2-3/4" | 68 | 8-1/2" | 204 | 187.00 | 278.29 | 500,000 | 226,800 | 450,000 | 204,120 |
| 3" | 72 | 9" | 216 | 206.00 | 306.57 | 565,000 | 256,284 | 508,500 | 230,656 |
| 3-1/4" | 80 | 10" | 240 | 261.00 | 388.42 | 685,000 | 310,716 | 616,500 | 279,644 |
| 3-5/8" | 88 | 11" | 264 | 324.00 | 482.18 | 850,000 | 385,560 | 765,000 | 347,004 |
| 4" | 96 | 12" | 288 | 394.00 | 586.35 | 1,000,000 | 453,600 | 900,000 | 408,240 |
| 4-1/4" | 104 | 13" | 312 | 455.00 | 677.13 | 1,150,000 | 521,640 | 1,035,000 | 469,476 |
| 4-5/8" | 112 | 14" | 336 | 516.00 | 767.91 | 1,300,000 | 589,680 | 1,170,000 | 530,712 |