

# ROPE AND TWIIIE 



OAKLAND • LOS ANGELES • SEATTLE • PORTLAND DENVER • HOUSTON • NEW ORLEANS


For over 75 years, Continental Western Corporation (CWC) has been proud to provide our distributors with quality products, timely delivery and outstanding customer service. In order to better serve your needs and become your one stop supplier, CWC is happy to offer you our Rope and Twine Catalog.

CWC has carefully selected the products in this catalog to ensure the highest quality and value possible. Every item has been carefully selected for its performance and durability. CWC strives to provide the highest level of quality goods in the industry.

CWC takes pride in the accurate and timely deliveries of our orders. We maintain large inventory levels in all of our seven warehouse locations to give us the ability to
 ship same day or next day after we receive your order.

CWC has a highly trained and knowledgeable sales staff to assist you with your rope and twine needs.
CWC sincerely appreciates the opportunity to serve you. The next time you need rope and twine, please allow CWC to be your vendor of choice. We will be happy to quote you on the products in this catalog, as well as any other product requirements you may have.

## Continental Western Corporation

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## (1W0) Rope Selection Guide

There are two types of fibers used in the construction of ropes and twines, natural and synthetic. The most common natural fibers used are Manila, Sisal, Jute, and Cotton, while synthetic fibers such as Polypropylene, Polyethylene, Nylon, and Polyester have become the most popular in today's market.


MANILA rope was once the preferred choice in ropes before the synthetic fibers were developed. Manila ropes still maintain some advantages to synthetic fibers. It is not affected by heat, and has an excellent resistance to the suns UV (Ultraviolet) rays.
SISAL fibers come from the Agave and Sisalana plants grown in some tropical
countries. Sisal has many of the characteristics of manila, but offers only $80 \%$ of its
strength. It is more economical than manila, and makes a good choice as a
general purpose rope. It is commonly used as a tying twine.

## EaUTE is mainly used as a tying twine. It knots very well. Due to its short fibers, it does not have much strength.



|  | POLYPROPYLENE \& POLYETHYLENE make a flexible and lightweight rope. They are <br> rot proof, resist oil, water, gasoline, and most chemicals. They are the only rope <br> fibers that float. Available twisted or braided, they are a perfect economical <br> choice as a general purpose rope. |
| :--- | :--- |
| POLYESTER is very strong and provides excellent abrasion resistance. Polyester <br> stretches less than nylon, so it does not have the elasticity of shock absorbing <br> qualities that nylon does. It has good resistance to UV rays, and resists rot, oil, <br> gasoline, and most chemicals. It is very popular as a marine or industrial rope <br> where stretch is not desired. |  |



NYLON is known for its elasticity and tremendous shock absorbing qualities. It has good abrasion resistance, is rot proof, resists oil, gasoline, and most chemicals. It has good resistance to UV rays. Nylon will last 4-5 times longer than natural fibers.

## Rope Selection Guide

| FIBER TYPE | NYLON | POLYESTER | POLYPROPYLENE | POLYETHYLENE | MANILA | COTTON |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STRENGTH | 1 | 2 | 3 | 4 | 5 | 6 |
| WET STRENGTH VS. DRY STRENGTH | 85\% | 100\% | 100\% | 100\% | 115\% | 115\% |
| SHOCK LOAD ABILITY | 1 | 3 | 2 | 4 | 5 | 6 |
| FLOATS OR SINKS IN WATER | SINKS | SINKS | FLOATS | FLOATS | SINKS | SINKS |
| ELONGATION AT BREAK | 20-34\% | 15\%-20\% | 15\%-20\% | 10\%-15\% | 10\%-15\% | 5\%-10\% |
| WATER ABSORPTION | 6\% | ZERO | ZERO | ZERO | 100\% | 100\% |
| MELTING POINT | $480^{\circ} \mathrm{F}$ | $500^{\circ} \mathrm{F}$ | $330^{\circ} \mathrm{F}$ | $275^{\circ} \mathrm{F}$ | DOES NOT MELT | DOES NOT MELT |
|  |  |  |  |  | CHARS AT $350^{\circ} \mathrm{F}$ | CHARS AT $350^{\circ} \mathrm{F}$ |
| ABRASION RESISTANCE | 2 | 1 | 4 | 5 | 3 | 3 |
| DEGRADATION: RESISTANCE TO SUNLIGHT | GOOD | EXCELLENT | POOR | FAIR | GOOD | GOOD |
| DEGRADATION: RESISTANCE TO ROT | EXCELLENT | EXCELLENT | EXCELLENT | EXCELLENT | POOR | POOR |
| DEGRADATION: RESISTANCE TO ACIDS | POOR | GOOD | GOOD | GOOD | POOR | POOR |
| DEGRADATION: RESISTANCE TO ALKALIS | GOOD | POOR | GOOD | GOOD | POOR | POOR |
| DEGRADATION: RESISTANCE TO OILAND GAS | GOOD | GOOD | GOOD | GOOD | POOR | POOR |
| ELECTRICAL CONDUCTIVITY RESISTANCE | POOR | GOOD | GOOD | GOOD | POOR | POOR |
| FLEXING ENDURANCE | 1 | 2 | 3 | 6 | 4 | 5 |
| SPECIFIC GRAVITY | 1.14 | 1.38 | . 90 | . 95 | 1.38 | 1.54 |
| STORAGE REQUIREMENTS | WET OR DRY | WET OR DRY | WET OR DRY | WET OR DRY | DRY ONLY | DRY ONLY |

Polypropylene Rope - Monofilament
This rope will float, has excellent resistance to most common chemicals. It is also resistant to rot, mildew and deterioration. It has good abrasion and UV resistance, good strength, and moderate stretch. Additional colors and combinations available.

| Yellow Item No | Black Item No | 2 Yellow/1 BIk Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 300010 | 301050 |  | 3/16" | $600{ }^{\prime}$ | 4 lbs |
| 300015 | 301055 | 301006 | 3/16" | 1,200' | 8 lbs |
| 300035 | 301060 | 301010 | 1/4" | 600' | 7 lbs |
| 300040 | 301065 | 301015 | 1/4" | 1,200' | 14 lbs |
|  | 301067 |  | 1/4" | 2,400' | 28 lbs |
| 300055 | 301075 | 301020 | 5/16" | 600' | 11 lbs |
| 300060 | 301077 | 301021 | 5/16" | 1,200' | 22 lbs |
| 300075 | 301085 | 301023 | 3/8" | 600' | 16 lbs |
| 300080 |  |  | 3/8" | 1,200' | 32 lbs |
| 300110 | 301089 |  | 7/16" | 600' | 21 lbs |
| 300115 |  |  | 7/16" | 1,200' | 42 lbs |
| 300120 | 301090 |  | 1/2" | 600' | 28 lbs |
| 300125 | 301092 |  | 1/2" | 1,200' | 56 lbs |
| 300130 |  |  | 9/16" | 600' | 35 lbs |
| 300140 | 301095 |  | 5/8" | 600' | 43 lbs |
| 300145 |  |  | 5/8" | 1,200' | 86 lbs |
| 300150 | 301100 |  | 3/4" | 600' | 62 lbs |
| 300155 | 301715 |  | 3/4" | 1,200' | 124 lbs |
| 300160 | 301103 |  | 7/8" | 600' | 85 lbs |
| 300200 | 301105 | 301038 | $1{ }^{\prime \prime}$ | 600' | 108 lbs |
| 300205 |  |  | $1{ }^{\prime \prime}$ | 1,200' | 216 lbs |
| 300210 |  | 301039 | 1-1/8" | 600' | 136 lbs |
| 300220 | 301118 | 301040 | 1-1/4" | 600' | 165 lbs |
| 300236 |  | 301043 | 1-1/2" | 600' | 236 lbs |
| 300242 |  |  | 1-5/8" | 600' | 276 lbs |
| 300247 |  | 301044 | 1-3/4" | $60{ }^{\prime}$ | 318 lbs |
| 300251 |  | 301046 | $2{ }^{\prime \prime}$ | 600' | 414 lbs |
|  |  | 301047 | $2{ }^{\prime \prime}$ | 600' | 414 lbs |
| 300253 |  |  | 2-1/4" | 600 | 528 lbs |
| 300261 |  | 301045 | 2-1/2" | 600' | 642 lbs |
| 300271 |  | 301048 | $3 "$ | 600' | 918 lbs |

## Polypropylene Rope - Film

This rope has a balanced construction, medium lay, good strength, and moderate stretch. It is lightweight, buoyant, and has excellent hand and knot ability.

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | ---: | ---: |
| 400007 | $3 / 16^{\prime \prime}$ | $1,200^{\prime}$ | 8 lbs |
| 400015 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 7 lbs |
| 400020 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 14 lbs |
| 400035 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | 11 lbs |
| 400040 | $5 / 16^{\prime \prime}$ | $1,200^{\prime}$ | 22 lbs |
| 400045 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 16 lbs |
| 400050 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 32 lbs |
| 400055 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | 23 lbs |
| 400070 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 28 lbs |
| 400075 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | 56 lbs |
| 400100 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 43 lbs |
| 400105 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 86 lbs |
| 400110 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 64 lbs |
| 400120 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | 90 lbs |
| 400130 | $1 "$ | $600^{\prime}$ | 108 lbs |
| 400140 | $1-1 / 4^{\prime \prime}$ | $600^{\prime}$ | 165 lbs |



## 



## Polypropylene Rope - Blue and White

Durable, rugged polypropylene rope, floats. It is made from a color-safe, strong polypropylene that allows minimal stretch and lifetime color. Will not rot or deteriorate. Other colors are available.

| CWC <br> Blue <br> Item No | CWC <br> White <br> Item No | Diameter | Length | Approx <br> Wt |
| :---: | :---: | :---: | ---: | :---: |
| 301200 | 301146 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 7 lbs |
| 301205 | 301147 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 14 lbs |
|  | 301144 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | 11 lbs |
| 301210 | 301143 | $5 / 6^{\prime \prime}$ | $1,200^{\prime}$ | 22 lbs |
| 301211 | 301148 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 16 lbs |
| 301213 | 301149 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 32 lbs |
| 301215 | 301150 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | 21 lbs |
|  | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 28 lbs |  |
| 301220 | 301151 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | 56 lbs |
| 301225 |  | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 43 lbs |
| 301230 |  | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 62 lbs |
| 301232 |  | $1 "^{\prime \prime}$ | $600^{\prime}$ | 108 lbs |

## Polypropylene Rope - Green and Orange

Durable, rugged polypropylene rope, floats. It is made from a color-safe, strong polypropylene that allows minimal stretch and lifetime color. Will not rot or deteriorate. Other colors are available.

| CWC <br> Green <br> Item No | CWC <br> Orange <br> Item No | Diameter | Length | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 301326 | 301309 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 7 lbs |
| 301131 | 301310 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 16 lbs |
|  | 301315 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 32 lbs |
| 301134 |  | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 28 lbs |
|  | 301316 | $3 / 4^{\prime \prime}$ | 600 | 62 lbs |

## MANILLO ${ }^{\text {m }}$ Polypropylene On Reels

A specially formulated twisted polypropylene rope that is much stronger, has half the weight, and costs less per foot than manila rope. It is resistant to rot and abrasion and is not damaged by petroleum products, mildew, marine growth or many chemicals.

| Item No | Diameter | Length | Approx <br> Wt |
| :---: | :---: | :---: | :---: |
| 341005 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 7 lbs |
| 341010 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 14 lbs |
| 341020 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | 11 lbs |
| 341030 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 16 lbs |
| 341050 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 28 lbs |
| 341060 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 43 lbs |
| 341070 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 62 lbs |
| 341105 | $1^{\prime \prime}$ | $600^{\prime}$ | 108 lbs |

## (©We) Ceneral Purpose

## Polypropylene Truck Rope - Black/Orange

Truck rope conforms to California State Highway Patrol requirements. Orange surface marker in each strand.

| Item No | Diameter | Length | Minimum Tensile | Approx Wt |
| ---: | :---: | ---: | ---: | ---: |
| 305005 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $2,190 \mathrm{lbs}$ | 16 lbs |
| 305010 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $2,190 \mathrm{lbs}$ | 32 lbs |
| 305015 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | $2,840 \mathrm{lbs}$ | 21 lbs |
| 305020 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $2,840 \mathrm{lbs}$ | 42 lbs |
| 305025 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $3,400 \mathrm{lbs}$ | 28 lbs |
| 305030 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $3,400 \mathrm{lbs}$ | 56 lbs |
| 305035 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $5,020 \mathrm{lbs}$ | 43 lbs |
| 305040 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $6,860 \mathrm{lbs}$ | 62 lbs |
| 305045 | $1^{\prime \prime}$ | $600^{\prime}$ | $11,540 \mathrm{lbs}$ | 108 lbs |

## POLY/DAG ${ }^{w}$ Truck Rope - White/Orange

Super high strength poly floating line. Made from high tenacity, coextrusion polyolefin yarn. Truck rope conforms to California State Highway Patrol requirements. Orange surface marker in each strand.

| Item No | Diameter | Length | Minimum Tensile | Approx Wt |
| :---: | :---: | ---: | ---: | ---: |
| 326005 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $2,430 \mathrm{lbs}$ | 22 lbs |
| 326010 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $2,430 \mathrm{lbs}$ | 44 lbs |
| 326015 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | $3,150 \mathrm{lbs}$ | 29 lbs |
| 326020 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $3,150 \mathrm{lbs}$ | 58 lbs |
| 326025 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $3,960 \mathrm{lbs}$ | 37 lbs |
| 326030 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $3,960 \mathrm{lbs}$ | 74 lbs |
| 326035 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $5,490 \mathrm{lbs}$ | 57 lbs |
| 326037 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $5,490 \mathrm{lbs}$ | 114 lbs |
| 326040 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $7,560 \mathrm{lbs}$ | 81 lbs |
| 326050 | $1^{\prime \prime}$ | $600^{\prime}$ | $11,860 \mathrm{lbs}$ | 130 lbs |

## BLUE STIEAL" Poly Truck Rope - Blue/Orange

Balanced 3-stage construction, medium lay, good abrasion and UV resistant. Truck rope conforms to California State Highway Patrol requirements. Orange surface marker in each strand.

| Item No | Diameter | Length | Minimum Tensile | Approx Wt |
| :---: | :---: | :---: | :---: | ---: |
| 405405 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $3,700 \mathrm{lbs}$ | 15 lbs |
| 405410 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | $4,600 \mathrm{lbs}$ | 18 lbs |
| 405415 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $6,500 \mathrm{lbs}$ | 26 lbs |
| 405420 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $10,900 \mathrm{lbs}$ | 46 lbs |
| 405425 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $13,900 \mathrm{lbs}$ | 59 lbs |
| 405430 | $1^{\prime \prime}$ | $600^{\prime}$ | $23,000 \mathrm{lbs}$ | 104 lbs |

## (4ve) Ceneral Purpose



| Combo Plus POLY/DAC ${ }^{\text {mm }}$ Blended Polyester Rope |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Poly/Dac" Item No | PolyPlus'"' Item No | Diameter | Length | $\begin{aligned} & \text { Approx } \\ & \text { Wt } \end{aligned}$ |
| 325005 | 755005 | 1/4" | $60{ }^{\prime}$ | 10 lbs |
| 325010 | 755010 | 1/4" | 1,200' | 20 lbs |
| 325015 | 755015 | 5/16" | $60{ }^{\prime}$ | 15 lbs |
| 325020 | 755020 | 5/16" | 1,200' | 30 lbs |
| 325025 | 755026 | 3/8" | 600' | 22 lbs |
| 325030 | 755030 | 3/8" | 1,200' | 44 lbs |
| 325040 | 755035 | 7/16" | 600' | 29 lbs |
| 325041 | 755040 | 7/16" | 1,200' | 58 lbs |
| 325045 | 755045 | 1/2" | 600' | 37 lbs |
| 325050 | 755050 | 1/2" | 1,200' | 74 lbs |
| 325060 |  | 9/16" | 600 | 47 lbs |
| 325065 | 755065 | 5/8" | 600' | 57 lbs |
| 325070 | 755070 | 5/8" | 1,200' | 114 lbs |
| 325100 | 755100 | 3/4" | 600' | 81 lbs |
| 325105 | 755105 | 3/4" | 1,200' | 162 lbs |
| 325110 | 755110 | 7/8" | 600 | 108 lbs |
|  | 755115 | 7/8" | 1,200' | 216 lbs |
| 325120 | 755120 | $1{ }^{1}$ | 600' | 130 lbs |
| 325122 | 755125 | $1{ }^{1 \prime}$ | 1,200' | 260 lbs |
| 325130 | 755130 | 1-1/8" | 600' | 163 lbs |
| 325140 | 755140 | 1-1/4" | 600' | 200 lbs |
| 325147 | 755150 | 1-1/2" | 600 | 282 lbs |
|  | 755160 | 1-5/8" | 600' | 330 lbs |
| 325167 | 755165 | 1-3/4" | 600 | 372 lbs |
| 325173 | 755200 | 2" | 600 | 486 lbs |
| 325182 | 755205 | 2-1/4" | 600 | 606 lbs |
| 325187 | 755210 | 2-1/2" | 600 | 744 lbs |
| 325191 |  | 2-5/8" | 600 | 840 lbs |
| 325197 |  | $3{ }^{\prime \prime}$ | 600' | 1,074 lbs |

## ICE BLUE" Combo

Ideal for very high strength mooring lines, head ropes, net ropes or any application where you need floatability and durability of a combination rope.
Made from high strength BLUE STEELTM and polyester fibers.

| Item No | $\begin{aligned} & \text { Construction } \\ & \text { Type } \end{aligned}$ | $\begin{aligned} & \text { Reel/ } \\ & \text { Coil } \end{aligned}$ | Diameter | Length | Minimum Tensile | $\begin{aligned} & \text { Approx } \\ & \mathbf{W t} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 403304 | 3 Strand | Reel | 5/8" | 600' | 9,800 lbs | 57 lbs |
| 403305 | 3 Strand | Reel | 3/4" | 600' | 12,700 lbs | 76 lbs |
| 403310 | 3 Strand | Reel | $1{ }^{17}$ | 600' | 21,300 lbs | 132 lbs |
| 403314 | 3 Strand | Reel | 1-1/8" | 600' | 28,000 lbs | 173 lbs |
| 403316 | 3 Strand | Coil | 1-1/4" | 600 | 34,200 lbs | 200 lbs |
| 403320 | 3 Strand | Coil | 1-1/2" | 600' | 47,500 lbs | 303 lbs |
| 403323 | 3 Strand | Reel | 1-3/4" | 600' | 66,300 lbs | 423 lbs |
| 403331 | 3 Strand | Reel | $2{ }^{\prime \prime}$ | 600' | $82,900 \mathrm{lbs}$ | 532 lbs |
| 403335 | 3 Strand | Reel | 2-1/4" | 600 | 112,500 lbs | 722 lbs |
| 403340 | 3 Strand | Coil | 2-1/2" | $60{ }^{\prime}$ | 126,000 lbs | 808 lbs |
| 403341 | 3 Strand | Reel | 2-1/2" | 600 | 126,000 lbs | 808 lbs |
| 403350 | 3 Strand | Coil | $3{ }^{\prime \prime}$ | 600' | 178,400 lbs | 1,145 lbs |
| 403420 | 8 Braid | Coil | 1-1/2" | $600^{\prime}$ | 55,500 lbs | 300 lbs |
| 403425 | 8 Braid | Coil | 1-3/4" | 600' | 79,600 lbs | 423 lbs |
| 403430 | 8 Braid | Coil | $2{ }^{\prime \prime}$ | $60{ }^{\prime}$ | 92,200 lbs | 532 lbs |
| 403437 | 8 Braid | Reel | 2-1/4" | 600' | 123,600 lbs | 723 lbs |
| 403440 | 8 Braid | Coil | 2-1/2" | 600' | 140,300 lbs | 808 lbs |
| 403445 | 8 Braid | Coil | 2-5/8" | 600' | 157,000 lbs | 910 lbs |
| 403450 | 8 Braid | Coil | 3 " | 600' | 196,900 lbs | 1,144 lbs |
| 403452 | 8 Braid | Coil | 3-1/4" | 600 | 238,830 lbs | 1,408 Ib |

## Nylon Rope - 3 Strand

High elongation and strength, good energy absorption, good abrasion resistant, excellent resistance to UV, rot, mildew, oil, grease, gasoline and many chemicals. White is the standard color however other sizes and colors are available.

| Standard Item No | Gulf Spec* Item No | Black Nylon Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 315005 | 409005 |  | 3/16" | 600' | 7 lbs |
| 315010 | 409010 |  | 3/16" | 1,200' | 14 lbs |
| 315015 | 409015 | 316203 | 1/4" | 600' | 10 lbs |
| 315020 | 409020 | 316430 | 1/4" | 1,200' | 20 lbs |
| 315025 | 409025 | 316204 | 5/16" | 600' | 16 lbs |
| 315030 | 409030 |  | 5/16" | 1,200' | 32 lbs |
| 315035 | 409035 | 316205 | 3/8" | 600' | 22 lbs |
| 315040 | 409040 |  | 3/8" | 1,200' | 44 lbs |
| 315045 | 409045 |  | 7/16" | 600' | 31 lbs |
| 315055 | 409050 | 316215 | 1/2" | $600{ }^{\prime}$ | 40 lbs |
| 315060 | 409055 |  | 1/2" | 1,200' | 80 lbs |
| 315100 |  | 316300 | 9/16" | 600' | 50 lbs |
| 315110 | 409060 | 316230 | 5/8" | 600' | 62 lbs |
| 315115 | 409065 |  | 5/8" | 1,200 | 124 lbs |
| 315120 | 409070 | 316235 | 3/4" | 600' | 90 lbs |
| 315125 | 409071 |  | 3/4" | 1,200' | 180 lbs |
| 315130 | 409080 |  | 7/8" | 600 | 122 lbs |
| 315140 | 409085 | 316250 | $1{ }^{\prime \prime}$ | 600 | 160 lbs |
| 315145 | 409090 |  | $1 "$ | 1,200' | 320 lbs |
| 315150 | 409095 |  | 1-1/8" | 600 | 202 lbs |
| 315160 | 409100 |  | 1-1/4" | 600 | 249 lbs |
| 315200 | 409105 |  | 1-1/2" | 600 | 358 lbs |
| 315217 |  |  | 1-3/4" | 600' | 486 lbs |
| 315220 | 409110 |  | 2 " | $600{ }^{\prime}$ | 636 lbs |
| 315230 | 409109 |  | 2-1/4" | $60{ }^{\prime}$ | 804 lbs |
| 315235 | 409113 |  | 2-1/2" | $600{ }^{\prime}$ | 990 lbs |

*Gulf spec products may have different weights.

## Polyester Rope - 3 Strand

Low stretch, high strength, good abrasion resistant, excellent resistance to UV, rot, mildew, oil, grease, gasoline and many chemicals. Standard color is white.

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: |
| 335015 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 12 lbs |
| 335025 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | 18 lbs |
| 335035 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 26 lbs |
| 335055 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 46 lbs |
| 335075 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 72 lbs |
| 335100 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 144 lbs |
| 335105 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 103 lbs |
| 335110 | $3 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 206 lbs |
| 335115 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | 140 lbs |
| 335125 | $1^{\prime \prime}$ | $600^{\prime}$ | 182 lbs |

## (WV) General Purpose



## PACIFIC ${ }^{\text {w" }}$ Manila Rope Coils

Manila rope is a natural fiber made from abaca, low stretch and good abrasion resistant. Poor chemical resistance, subject to rot. Available with blue tracer or with no tracer. Meets Federal Specifications number TR605, Type M.

| Standard Item No | Gulf Spec Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: | :---: |
| 200005 | 200495 | 3/16" | 3,300' | 45 lbs |
| 200007 | 200500 | 1/4" | 600' | 10 lbs |
| 200010 | 200506 | 1/4" | 1,250' | 25 lbs |
|  | 200505 | 1/4" | 1,200' | 22 lbs |
| 200015 | 200510 | 1/4" | 2,500' | 50 lbs |
| 200016 |  | 5/16" | 600' | 16 lbs |
| 200021 | 200515 | 5/16" | 830' | 22 lbs |
| 200020 |  | 5/16" | 1,725 | 44 lbs |
| 200025 | 200525 | 3/8" | 600' | 25 lbs |
| 200030 | 200530 | 3/8" | 1,200' | 50 lbs |
| 200035 | 200535 | 7/16" | 600 | 29 lbs |
| 200045 | 200545 | 1/2" | 600' | 42 lbs |
| 200050 | 200550 | 1/2" | 1,200' | 84 lbs |
| 200055 | 200555 | 5/8" | 600' | 76 lbs |
| 200060 | 200560 | 5/8" | 1,200' | 142 lbs |
| 200065 | 200565 | $3 / 4 "$ | 600' | 95 lbs |
| 200070 | 200570 | 3/4" | 1,200' | 190 lbs |
| 200100 | 200575 | 7/8" | $600{ }^{\prime}$ | 128 lbs |
| 200110 | 200585 | $1{ }^{\prime \prime}$ | 600' | 154 lbs |
| 200115 | 200590 | $1{ }^{\prime \prime}$ | 1,200' | 308 lbs |
| 200120 | 200595 | 1-1/8" | 600' | 206 lbs |
| 200130 | 200605 | 1-1/4" | 600' | 238 lbs |
| 200138 | 200610 | 1-1/2" | 600' | 342 lbs |
| 200151 | 200635 | 2 | 600' | 612 lbs |

Manila on Wooden Reels

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | ---: | ---: |
| 201003 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | 11 lbs |
| 201005 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 22 lbs |
| 201007 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | 16 lbs |
| 201010 | $5 / 16^{\prime \prime}$ | $850^{\prime}$ | 22 lbs |
| 201015 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 25 lbs |
| 201020 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | 29 lbs |
| 201025 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 42 lbs |
| 201030 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 76 lbs |
| 201035 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 95 lbs |

## 4 Strand PACIFIC ${ }^{\text {w" }}$ Manila Safety Line

Manila safety line is a natural fiber made from abaca, low stretch, excellent abrasion resistant. Poor chemical resistance, subject to rot and it has a 3/16" diameter wire center.

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: |
| 203525 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | 160 lbs |

## Sisal Rope Goils

Sisal rope is a natural fiber made from the Agave plant, no oil treatment.
Moderate stretch, poor chemical resistance, subject to rot, knots well.

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: |
| 208001 | $3 / 16^{\prime \prime}$ | $3,300^{\prime}$ | 43 lbs |
| 208005 | $1 / 4^{\prime \prime}$ | $1,500^{\prime}$ | 26 lbs |
| 208010 | $1 / 4^{\prime \prime}$ | $2,500^{\prime}$ | 43 lbs |
| 208015 | $5 / 16^{\prime \prime}$ | $1,725^{\prime}$ | 43 lbs |
| 208025 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 22 lbs |
| 208030 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 43 lbs |
| 208040 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 37 lbs |
| 208050 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 64 lbs |
| 208065 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | 80 lbs |
| 208066 | $7 / 8^{\prime \prime}$ | $450^{\prime}$ | 80 lbs |
| 208069 | $1^{\prime \prime}$ | $370^{\prime}$ | 80 lbs |

## White Cotton Rope

Cotton rope is naturally soft, easy to work with, braids well and is very popular in the livestock industry. It is commonly used for halter and lead ropes. Cotton rope will not induce a rope burn as quickly as nylon and polypropylene rope. This rope is available in a combination of colors. Product consists of a cotton/ polyester blend.

| Coils | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: |
| 210005 | $3 / 16^{\prime \prime}$ | $2,250^{\prime}$ | 25 lbs |
| 210010 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 22 lbs |
| 210020 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 25 lbs |
| 210035 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 38 lbs |
| 210040 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 55 lbs |
| 210045 | $3 / 4^{\prime \prime}$ | $300^{\prime}$ | 40 lbs |
| 210050 | $1^{\prime \prime}$ | $300^{\prime}$ | 60 lbs |
| 210052 | $11 / 4^{\prime \prime}$ | $300^{\prime}$ | 63 lbs |

White Gotton Rope - Spools

| Item No | Diameter | Length | Approx Wt |
| :---: | :---: | :---: | :---: |
| 211005 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | 25 lbs |
| 211015 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | 38 lbs |
| 211020 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | 55 lbs |
| 211025 | $3 / 4^{\prime \prime}$ | $300^{\prime}$ | 40 lbs |
| 211030 | $1^{\prime \prime}$ | 300 | 60 lbs |

Spun Braided Polyester Halter Rope

| Item No | Diameter | Length | Color | Approx Wt |
| :---: | :---: | :---: | :---: | :---: |
| 216013 | $1 / 2^{\prime \prime}$ | $300^{\prime}$ | White | 8 lbs |
| 216014 | $1 / 2^{\prime \prime}$ | $300^{\prime}$ | Gold | 8 lbs |
| 216023 | $5 / 8^{\prime \prime}$ | $300^{\prime}$ | White | 15 lbs |
| 216024 | $5 / 8^{\prime \prime}$ | $300^{\prime}$ | Gold | 15 lbs |

## (WV) General Purpose

## Super Strength BLUE STEEL"m Poly Rope



| Item No | Diameter | Length | Reel/Coil | Minimum Tensile Strength | Approx Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 402005 | 1/8" | 1,200' | Coil | 470 lbs | 5 lbs |
| 402010 | 3/16" | 1,200' | Coil | 950 lbs | 8 lbs |
| 402011 | 3/16" | 1,200' | Reel | 950 lbs | 8 lbs |
| 402020 | 1/4" | 1,200' | Coil | 1,600 lbs | 14 lbs |
| 402023 | 5/16" | 600' | Reel | 3,100 lbs | 12 lbs |
| 402025 | 5/16" | 1,200' | Reel | 3,100 lbs | 24 lbs |
| 402040 | 3/8" | 600' | Reel | 3,800 lbs | 15 lbs |
| 402042 | 3/8" | 1,200' | Reel | 3,800 lbs | 30 lbs |
| 402045 | 7/16" | 600' | Reel | 4,700 lbs | 18 lbs |
| 402050 | 1/2" | 600' | Reel | 6,600 lbs | 27 lbs |
| 402055 | 1/2" | 1,200' | Reel | 6,600 lbs | 53 lbs |
| 402080 | 9/16" | 600' | Reel | 8,900 lbs | 36 lbs |
| 402082 | 5/8" | 600' | Reel | 11,000 lbs | 46 lbs |
| 402085 | 5/8" | 1,200' | Coil | 11,000 lbs | 92 lbs |
| 402084 | 5/8" | 1,200' | Reel | 11,000 lbs | 92 lbs |
| 402095 | $3 / 4{ }^{\prime \prime}$ | 600' | Coil | 13,900 lbs | 59 lbs |
| 402097 | 3/4" | 600' | Reel | 13,900 lbs | 59 lbs |
| 402100 | 3/4" | 1,200' | Coil | 13,900 lbs | 118 lbs |
| 402105 | 7/8" | 600' | Coil | 20,100 lbs | 88 lbs |
| 402106 | 7/8" | 600' | Reel | 20,100 lbs | 88 lbs |
| 402110 | 7/8" | 1,200' | Coil | 20,100 lbs | 177 lbs |
| 402115 | $1{ }^{\prime \prime}$ | 600' | Coil | 23,100 lbs | 104 lbs |
| 402120 | 1-1/8" | 600' | Coil | 30,100 lbs | 142 lbs |
| 402125 | 1-1/4" | 600' | Coil | 32,900 lbs | 160 lbs |
| 402126 | 1-1/4" | 600' | Reel | 32,900 lbs | 160 lbs |
| 402135 | 1-1/2" | 600' | Coil | 46,100 lbs | 234 lbs |
| 402142 | 1-5/8" | 600' | Reel | 55,600 lbs | 288 lbs |
| 402145 | 1-3/4" | 600' | Coil | 66,500 lbs | 352 lbs |
| 402148 | 1-3/4" | 600' | Reel | 66,500 lbs | 352 lbs |
| 402150 | 2 " | 600' | Coil | 83,500 lbs | 451 lbs |
| 402162 | 2-1/4" | 600' | Coil | 107,100 lbs | 609 lbs |
| 402163 | 2-1/4" | 600' | Reel | 107,100 lbs | 609 lbs |
| 402170 | 2-1/2" | 600' | Coil | 122,300 lbs | 695 lbs |
| 402187 | 2-5/8" | 600' | Coil | 137,800 lbs | 785 lbs |
| 402195 | $3{ }^{\prime \prime}$ | 600' | Coil | 176,000 lbs | 1,014 lbs |

Additional sizes also available.

## NyIon Double Braid Rope

High strength, high stretch, torque free, excellent shock absorption, good resistance to abrasion, ultraviolet rays and common chemicals. Due to its high elongations, nylon is almost always used in applications involving shock loading such as anchor lines and mooring lines.

| Item No | Diameter | Length | Color | Minimum <br> Tensile | Approx Wt <br> Per $600^{\prime}$ |
| :---: | :---: | :---: | :---: | ---: | ---: |
| 345015 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $1,900 \mathrm{lbs}$ | 11 lbs |
| 345014 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | Gold/White | $1,900 \mathrm{lbs}$ | 11 lbs |
| 345099 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | Black | $1,900 \mathrm{lbs}$ | 11 lbs |
| 345025 | $5 / 1^{\prime \prime}$ | $600^{\prime}$ | White | $2,900 \mathrm{lbs}$ | 16 lbs |
| 345035 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $4,200 \mathrm{lbs}$ | 22 lbs |
| 345012 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | Gold/White | $4,200 \mathrm{lbs}$ | 22 lbs |
| 345110 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | Black | $4,200 \mathrm{lbs}$ | 22 lbs |
| 345045 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | White | $5,700 \mathrm{lbs}$ | 31 lbs |
| 345050 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | White | $7,400 \mathrm{lbs}$ | 40 lbs |
| 345013 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | Gold/White | $7,400 \mathrm{lbs}$ | 40 lbs |
| 345120 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | Black | $7,400 \mathrm{lbs}$ | 40 lbs |
| 345060 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $14,800 \mathrm{lbs}$ | 70 lbs |
| 345011 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | Gold/White | $14,800 \mathrm{lbs}$ | 70 lbs |
| 345115 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | Black | $14,800 \mathrm{lbs}$ | 70 lbs |
| 346070 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $19,000 \mathrm{lbs}$ | 88 lbs |
| 346107 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $28,300 \mathrm{lbs}$ | 131 lbs |
| 346110 | $1 "^{\prime \prime}$ | $600^{\prime}$ | White | $33,500 \mathrm{lbs}$ | 156 lbs |
| 346125 | $1-1 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $44,900 \mathrm{lbs}$ | 213 lbs |
| 346127 | $1-1 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $52,300 \mathrm{lbs}$ | 244 lbs |
| 346130 | $1-1 / 2^{\prime \prime}$ | $600^{\prime}$ | White | $74,000 \mathrm{lbs}$ | 350 lbs |
| 346135 | $1-5 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $92,400 \mathrm{lbs}$ | 434 lbs |
| 346137 | $1-3 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $110,900 \mathrm{lbs}$ | 526 lbs |
| 346140 | $2 "$ | $600^{\prime}$ | White | $131,500 \mathrm{lbs}$ | 623 lbs |
|  | Larger sizes and colors are available upon request. |  |  |  |  |
|  |  |  |  |  |  |

## Polyester Double Braid Rope

High strength, low stretch, torque free, excellent wet/dry abrasion resistant and wet/dry strength. Good resistance to ultraviolet rays and common chemicals. Obtains the best weathering characteristics of all popular fibers.

| Item No | Diameter | Length | Color | Minimum <br> Tensile | Approx Wt <br> Per $60 \mathbf{c}^{\prime}$ |
| :---: | :---: | :---: | :---: | ---: | ---: |
| 347020 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $2,400 \mathrm{lbs}$ | 15 lbs |
| 347030 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | White | $3,600 \mathrm{lbs}$ | 22 lbs |
| 347040 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $4,800 \mathrm{lbs}$ | 29 lbs |
| 347050 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | White | $6,300 \mathrm{lbs}$ | 38 lbs |
| 347060 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | White | $8,400 \mathrm{lbs}$ | 52 lbs |
| 347070 | $9 / 16^{\prime \prime}$ | $600^{\prime}$ | White | $10,750 \mathrm{lbs}$ | 67 lbs |
| 347100 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $12,300 \mathrm{lbs}$ | 79 lbs |
| 348110 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | White | $17,400 \mathrm{lbs}$ | 113 lbs |
| 348123 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $24,000 \mathrm{lbs}$ | 154 lbs |
| 348125 | $1^{\prime \prime}$ | $600^{\prime}$ | White | $31,200 \mathrm{lbs}$ | 210 lbs |
| 348130 | $1-1 / 8^{\prime \prime}$ | $600^{\prime}$ | White | $39,500 \mathrm{lbs}$ | 255 lbs |

Larger sizes and colors are available upon request.


## Super Dyna \& HS Super Dan 8 Braid Mooring Lines

Two times the wear life of polypropylene, $20 \%$ to $25 \%$ stronger than polypropylene, non torque construction, good UV resistance, abrasion resistance, floats in water, excellent resistance to most common chemicals, rot and mildew. Made from high strength $100 \%$ polyolefin yarns.

| Item No | Diameter | Length | Size | Minimum <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 403645 | $1-5 / 8^{\prime \prime}$ | $720^{\prime}$ | 40 mm | $43,000 \mathrm{lbs}$ | 284 lbs |
| 403647 | $2^{\prime \prime}$ | $720^{\prime}$ | 50 mm | $64,000 \mathrm{lbs}$ | 498 lbs |
| 403652 | $2-1 / 4^{\prime \prime}$ | $720^{\prime}$ | 56 mm | $88,000 \mathrm{lbs}$ | 660 lbs |
| 403655 | $2-1 / 2^{\prime \prime}$ | $720^{\prime}$ | 60 mm | $100,000 \mathrm{lbs}$ | 770 lbs |
| 403662 | $2-5 / 8^{\prime \prime}$ | $720^{\prime}$ | 64 mm | $115,000 \mathrm{lbs}$ | 864 lbs |
| 403665 | $3^{\prime \prime}$ | $720^{\prime}$ | 72 mm | $146,000 \mathrm{lbs}$ | $1,102 \mathrm{lbs}$ |
| 403670 | $3-1 / 4^{\prime \prime}$ | $720^{\prime}$ | 80 mm | $175,000 \mathrm{lbs}$ | $1,398 \mathrm{lbs}$ |
| 403675 | $4^{\prime \prime}$ | $720^{\prime}$ | 96 mm | $240,000 \mathrm{lbs}$ | $1,960 \mathrm{lbs}$ |
| 700223 | $2-5 / 8^{\prime \prime}$ | $720^{\prime}$ | 64 mm | $143,000 \mathrm{lbs}$ | 895 lbs |
| 400232 | $3^{\prime \prime}$ | $720^{\prime}$ | 72 mm | $181,000 \mathrm{lbs}$ | $1,132 \mathrm{lbs}$ |
| 400236 | $3-1 / 4^{\prime \prime}$ | $720^{\prime}$ | 80 mm | $219,000 \mathrm{lbs}$ | $1,403 \mathrm{lbs}$ |

## 8 Braid BLUE STEEL" ${ }^{\text {m" }}$ Poly

High strength coextrusion polyolefin yarns, $35 \%$ to $40 \%$ stronger than polypropylene, non torque construction, superior UV resistance over polypropylene, superior abrasion resistant, floats in water, excellent resistance to most common chemicals, rot and mildew.

| Item No | Coil/Reel | Diameter | Length | Minimum <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 402118 | Coil | $1^{\prime \prime}$ | $600^{\prime}$ | $22,800 \mathrm{lbs}$ | 105 lbs |
| 402123 | Coil | $1-1 / 8^{\prime \prime}$ | $600^{\prime}$ | $30,300 \mathrm{lbs}$ | 143 lbs |
| 402130 | Coil | $1-1 / 4^{\prime \prime}$ | $600^{\prime}$ | $34,200 \mathrm{lbs}$ | 162 lbs |
| 402137 | Coil | $1-1 / 2^{\prime \prime}$ | $600^{\prime}$ | $48,200 \mathrm{lbs}$ | 233 lbs |
| 402143 | Reel | $1-5 / 8^{\prime \prime}$ | $600^{\prime}$ | $59,400 \mathrm{lbs}$ | 287 lbs |
| 402146 | Coil | $1-3 / 4^{\prime \prime}$ | $600^{\prime}$ | $71,000 \mathrm{lbs}$ | 354 lbs |
| 402147 | Reel | $1-3 / 4^{\prime \prime}$ | $600^{\prime}$ | $71,000 \mathrm{lbs}$ | 354 lbs |
| 402155 | Coil | $2 "$ | $600^{\prime}$ | $86,900 \mathrm{lbs}$ | 433 lbs |
| 402156 | Reel | $2 "$ | $600^{\prime}$ | $86,900 \mathrm{lbs}$ | 433 lbs |
| 402165 | Coil | $2-1 / 4^{\prime \prime}$ | $600^{\prime}$ | $114,600 \mathrm{lbs}$ | 586 lbs |
| 402166 | Reel | $2-1 / 4^{\prime \prime}$ | $600^{\prime}$ | $114,600 \mathrm{lbs}$ | 586 lbs |
| 402180 | Coil | $2-1 / 2^{\prime \prime}$ | $600^{\prime}$ | $130,900 \mathrm{lbs}$ | 672 lbs |
| 402181 | Reel | $2-1 / 2^{\prime \prime}$ | $600^{\prime}$ | $130,900 \mathrm{lbs}$ | 672 lbs |
| 402188 | Coil | $2-5 / 8^{\prime \prime}$ | $600^{\prime}$ | $147,300 \mathrm{lbs}$ | 762 lbs |
| 402200 | Coil | $3 "$ | $600^{\prime}$ | $187,300 \mathrm{lbs}$ | 962 lbs |
| 402210 | Coil | $3-1 / 4^{\prime \prime}$ | $600^{\prime}$ | $226,700 \mathrm{lbs}$ | $1,188 \mathrm{lbs}$ |
| 402225 | Coil | $4 \mathbf{l b s}^{\prime \prime}$ | $600^{\prime}$ | $319,800 \mathrm{lbs}$ | $1,699 \mathrm{lbs}$ |

## Nylon 8 Braid

High elongation and strength, good energy absorption, non torque construction, good abrasion resistant, superior UV resistance, rot, mildew, oil, grease, gasoline and most common chemicals.

| Item No | Diameter | Length | Average <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | ---: | ---: |
| 409126 | 2 " $^{\prime \prime}$ | $600^{\prime}$ | $96,900 \mathrm{lbs}$ | 636 lbs |
| 409131 | $2-5 / 8^{\prime \prime}$ | $600^{\prime}$ | $163,800 \mathrm{lbs}$ | $1,086 \mathrm{lbs}$ |
| 409136 | $3^{\prime \prime}$ | $600^{\prime}$ | $209,800 \mathrm{lbs}$ | $1,422 \mathrm{lbs}$ |
| 409138 | $3-1 / 4^{\prime \prime}$ | $600^{\prime}$ | $248,800 \mathrm{lbs}$ | $1,728 \mathrm{lbs}$ |
| 409145 | 4 " $^{\prime}$ | 600 | $356,400 \mathrm{lbs}$ | $2,520 \mathrm{lbs}$ |

## (wv) High strength 12 Strand

## BLUE STEEL"M Copolymer 12 Strand

High strength coextrusion polyolefin yarns, $35 \%$ to $40 \%$ stronger than polypropylene, flexible non rotating construction, superior UV resistance over polypropylene, superior abrasion resistant, floats in water, excellent resistance to most common chemicals, rot and mildew, easily spliced.

| Item No | Diameter | Length | Minimum <br> Tensile | Approx <br> $\mathbf{W t}$ |
| :---: | :---: | :---: | :---: | :---: |
| 353310 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $6,900 \mathrm{lbs}$ | 32.4 |
| 353320 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $12,200 \mathrm{lbs}$ | 57.6 |
| 353325 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $15,900 \mathrm{lbs}$ | 75.0 |
| 353328 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | $21,200 \mathrm{lbs}$ | 102.0 |
| 353330 | $1 "$ | $600^{\prime}$ | $25,200 \mathrm{lbs}$ | 116.4 |
| 353334 | $1-1 / 8^{\prime \prime}$ | $600^{\prime}$ | $33,500 \mathrm{lbs}$ | 159.0 |

Sizes $1-1 / 4^{"}$ through 4 " also available by special order only.

## SPECTBA 12 Strand

Very high strength synthetic rope with excellent abrasion resistant in a single braid construction. It comes standard with a polyurethane finish and is easily spliced using a lockstitch type splice, 4-3-2 or 5-4-3 tuck splice. It also has a low stretch, low creep, soft hand, is torque-free and it floats.

| Item No | Diameter | Length | Minimum <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 353344 | $1 / 8^{\prime \prime}$ | $600^{\prime}$ | $1,800 \mathrm{lbs}$ | 3.2 |
| 353343 | $3 / 16^{\prime \prime}$ | $600^{\prime}$ | $3,600 \mathrm{lbs}$ | 6.0 |
| 353345 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | $9,000 \mathrm{lbs}$ | 15.6 |
| 353346 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | $6,000 \mathrm{lbs}$ | 9.6 |
| 353349 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $13,900 \mathrm{lbs}$ | 22.2 |
| 353348 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $13,900 \mathrm{lbs}$ | 44.4 |
| 353352 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | $14,800 \mathrm{lbs}$ | 25.2 |
| 353350 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $22,500 \mathrm{lbs}$ | 38.4 |
| 353351 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $22,500 \mathrm{lbs}$ | 76.8 |
| 353355 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $36,600 \mathrm{lbs}$ | 63.6 |
| 353358 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $43,200 \mathrm{lbs}$ | 79.8 |
|  |  |  |  |  |

## PLASMA 12 Strand

Highest strength synthetic rope available. It comes standard with a polyurethane finish and is easily spliced using a lockstitch type splice, 4-3-2 or 5-4-3 tuck splice. It also has the lowest stretch, low creep, soft hand, is torquefree and it floats.

| Item No | Diameter | Length | Minimum <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 353501 | $3 / 16^{\prime \prime}$ | $600^{\prime}$ | $5,500 \mathrm{lbs}$ | 6.8 |
| 353500 | $5 / 16^{\prime \prime}$ | $600^{\prime}$ | $11,700 \mathrm{lbs}$ | 15.0 |
| 353505 | $7 / 16^{\prime \prime}$ | $600^{\prime}$ | $21,000 \mathrm{lbs}$ | 25.2 |
| All other sizes are available. |  |  |  |  |




## PRO SERIES ${ }^{m} 12$ Strand - White

A climbing and bull rope, each yarn is made of high tenacity polyester covering a polyolefin core. The rope is white with distinctive blue and gold polyester tracers. Designed with a firm lay and special finish, 12 strand rope is lightweight yet strong, giving good resistance to abrasive wear when running over limbs and against bark while under load. 12 strand rope maintains its shape, has good knot control, is flexible, non-rotational and will not hockle.

| Item No | Diameter | Length | Tensile <br> Strength | Approx <br> Wt/100' |
| :---: | :---: | :---: | :---: | ---: |
| 349175 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $5,400 \mathrm{lbs}$ | 7.5 lbs |
| 349185 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $6,500 \mathrm{lbs}$ | 10.7 lbs |



## PRO SERIES ${ }^{\text {m" }} 16$ Strand - White

A perfectly balanced climbing rope of high tenacity $100 \%$ polyester construction. This distinctive white polyester rope is enhanced by an orange fleck. This rope is designed to improve wear and give excellent knot control. 16 strand rope offers high strength, low stretch, flexibility, is non-rotational, maintains its round shape in use - the perfect choice for the professional arborist.

| Item No | Diameter | Length | Tensile <br> Strength | Approx <br> Wt/100' |
| :---: | :---: | :---: | :---: | :---: |
| 349275 | $1 / 2^{\prime \prime}$ | 600 | $5,500 \mathrm{lbs}$ | 7.5 lbs |

## PRO SERIES" 16 Strand - Max Vis

The ultimate high visibility rope, with alternating orange and yellow fluorescent strands. Its 16 strand construction, quality and performance are identical to 16 strand - white and 16 strand - red. 16 strand - Max Vis truly sets the standard in high visibility climbing ropes.

| Item No | Diameter | Length | Tensile <br> Strength | Approx <br> Wt/100' |
| :---: | :---: | :---: | :---: | :---: |
| 349295 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $5,500 \mathrm{lbs}$ | 7.5 lbs |
| 349300 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $8,300 \mathrm{lbs}$ | 11.0 lbs |

## BLUE STEEL" Floating Crab Rope Coextrusion Polyolefin - Super Strong

Hard lay, high strength, co-polymer fibers, floating, excellent abrasion resistant. $40 \%$ stronger than polypro, low stretch. Exclusive to CWC. Look for distinctive aqua blue with blue tracer yarn.

| Item No | Diameter | Length | Average Tensile <br> Strength | Approx <br> Wt/Coil |
| :---: | :---: | :---: | :---: | :---: |
| 415300 | $5 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $2,650 \mathrm{lbs}$ | 37 lbs |
| 415305 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $3,740 \mathrm{lbs}$ | 46 lbs |
| 415310 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $4,730 \mathrm{lbs}$ | 57 lbs |
| 415315 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $6,160 \mathrm{lbs}$ | 69 lbs |
| 415306 | $9 / 16^{\prime \prime}$ | 1,200 | $7,850 \mathrm{lbs}$ | 107 lbs |
| 415312 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $9,970 \mathrm{lbs}$ | 125 lbs |

## SILVER PACIFIC ${ }^{\text {m" }}$ Floating Grab Rope Coextrusion Polyolefin - Super Strong

Hard lay, high strength, co-polymer fibers, floating, excellent abrasion resistant. 40 \% stronger than polypro, low stretch. Silver with black and blue tracer yarns.

| Item No | Diameter | Length | Average Tensile <br> Strength | Approx <br> Wt/Coil |
| :---: | :---: | :---: | :---: | :---: |
| 415005 | $5 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $2,215 \mathrm{lbs}$ | 32 lbs |
| 415010 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $3,470 \mathrm{lbs}$ | 42 lbs |
| 415015 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $4,530 \mathrm{lbs}$ | 57 lbs |
| 415020 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $5,880 \mathrm{lbs}$ | 73 lbs |
| 415022 | $9 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $6,940 \mathrm{lbs}$ | 86 lbs |

## STEEL PRO" Floating Grab Rope High Strength Grab Lines

Lavender co-polymer crab rope, high strength, excellent abrasion resistant, and it floats.

| Item No | Diameter | Length | Average Tensile <br> Strength | Approx <br> Wt/Coil |
| :---: | :---: | :---: | :---: | :---: |
| 310300 | $5 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $2,215 \mathrm{lbs}$ | 32 lbs |
| 310305 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $3,470 \mathrm{lbs}$ | 42 lbs |
| 310310 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $4,530 \mathrm{lbs}$ | 57 lbs |
| 310315 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $5,880 \mathrm{lbs}$ | 73 lbs |
| 310325 | $9 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $7,700 \mathrm{lbs}$ | 100 lbs |
| 310330 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $9,400 \mathrm{lbs}$ | 121 lbs |
| 310335 | $3 / 4^{\prime \prime}$ | $1,200^{\prime}$ | $12,500 \mathrm{lbs}$ | 170 lbs |

## XTRA LINE ${ }^{\text {m" }}$ Floating Crab Rope Split Film Grab Lines

Hard lay, split film construction, economical, light silver with black and blue tracer yarn.

| Item No | Diameter | Length | Average Tensile <br> Strength | Approx <br> $\mathbf{W t / C o i l}$ |
| :---: | :---: | :---: | :---: | :---: |
| 415350 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $3,180 \mathrm{lbs}$ | 46 lbs |
| 415360 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $4,020 \mathrm{lbs}$ | 60 lbs |
| 415361 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $5,230 \mathrm{lbs}$ | 78 lbs |

## 



## ICE BLUE STEEL ${ }^{\text {m }}$ Combo Sinking Grab Rope High Strength Polyolefin w/Polyester Cover

An excellent abrasion resistant sinking rope comprised of polyester plied yarns over high strength BLUE STEEL ${ }^{\text {™ }}$ core yarns. White with the distinctive BLUE STEEL ${ }^{\text {m }}$ core yarns, one orange and one blue tracer yarn. Hard lay construction.

| Item No | Diameter | Length | Average Tensile | Approx <br> Wt/Coil |
| :---: | :---: | :---: | :---: | ---: |
| 415510 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $3,210 \mathrm{lbs}$ | 59 lbs |
| 415521 | $7 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $3,420 \mathrm{lbs}$ | 68 lbs |
| 415520 | $1 / 2^{\prime \prime}$ | $1,200^{\prime}$ | $4,850 \mathrm{lbs}$ | 87 lbs |
| 415525 | $9 / 16^{\prime \prime}$ | $1,200^{\prime}$ | $6,500 \mathrm{lbs}$ | 118 lbs |
| 415530 | $5 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $8,700 \mathrm{lbs}$ | 168 lbs |

## CAUTION:

All hard lay synthetic ropes have as much as $30 \%$ less strength than regular rope.

| Polypropylene Trailer $\&$ Bridle Line Medium Lay - Yellow w/Black Tracer Yarns |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Type | Diameter | Length | Approx Wt/Coil |
| 411005 | Trailer Line | 5/8" | 1,200' | 100 lbs |
| 411010 | Trailer Line | 3/4" | 1,200' | 128 lbs |
| 411012 | Bridle Line | $1{ }^{\prime \prime}$ | 600 | 110 lbs |

## Multi-Colored Chaffing Rope

Bulky and loosely twisted polyethylene that helps protect valuable gear from abrasion and protects shrimp netting.

| Item No | Construction | Diameter | Length | Approx <br> Wt/Coil |
| :---: | :---: | :---: | :---: | :---: |
| 302105 | $100 \%$ Polyethylene | $1^{\prime \prime}$ | 600 | 100 lbs |



## Cotton Escape Gord

## Biodegradable - 100\% Gotton, Twisted

It is specially designed for use as an escape cord on crab traps, fish, nets and traps. Consult your local regulations for cord size requirements. Department of Fisheries requires that this cord be $100 \%$ pure cotton. Our cord meets all requirements and is biodegradable.

| Item No | Size | Approx <br> Ft/Lb | Approx <br> Wt/Tube |
| :---: | :---: | :---: | :---: |
| 137160 | $\# 30$ | $640^{\prime}$ | 2 lbs |
| 137170 | $\# 60$ | $120^{\prime}$ | 2 lbs |
| 137175 | $\# 60$ | $120^{\prime}$ | 5 lbs |
| 137199 | $\# 120$ | $160^{\prime}$ | 2 lbs |
| 137200 | $\# 120$ | $160^{\prime}$ | 5 lbs |


| Longlines/Groundines <br> Leaded Manline Groundline with Orange Tracer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Diameter | Length | Rope Type | Minimum Break | Approx Wt/Coil |
| 430004 | 1/4" | 600' | Manline Polypro | 1,200 lbs | 2 lbs |
| 430001 | 5/16" | 100 | Manline Polypro | 1,600 lbs | 3 lbs |
| 430005 | 5/16" | 400' | Manline Polypro | 1,600 lbs | 12 lbs |
| 430010 | 5/16" | 600' | Manline Polypro | 1,600 lbs | 18 lbs |
| 430015 | 5/16" | 1,800' | Manline Polypro | 1,600 lbs | 48 lbs |
| 430018 | 11/32" | 1,800' | Manline Polypro | 2,100 lbs | 65 lbs |
| 430020 | 3/8" | 600' | Manline Polypro | 2,600 lbs | 25 lbs |
| 430025 | 3/8" | 1,800 | Manline Polypro | 2,600 lbs | 75 lbs |
| 430030 | 7/16" | 1,800' | Manline Polypro | 3,800 lbs | 106 lbs |
| 430215 | 5/16" | 1,800' | Blue Steel ${ }^{\text {TM }}$ | 1,820 lbs | 48 lbs |
| 430118 | 11/32" | 1,800' | Blue Steel ${ }^{\text {TM }}$ | 2,400 lbs | 65 lbs |
| 430125 | 3/8" | 1,800' | Blue Steel ${ }^{\text {TM }}$ | 4,000 lbs | 75 lbs |


|  | Pleasure Marine Nylon Dockline |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Double Braid |
| Domer |  |  |

## Pleasure Marine White Nylon Dockline Twisted 3 Strand

| Item No | Color | Diameter | Length | Approx <br> Wt/Each |
| :---: | :---: | :---: | :---: | :---: |
| 317011 | White | $3 / 8^{\prime \prime}$ | $15^{\prime}$ | 8 lbs |
| 317016 | White | $3 / 8^{\prime \prime}$ | $20^{\prime}$ | 9 lbs |
| 317021 | White | $3 / 8^{\prime \prime}$ | $25^{\prime}$ | 12 lbs |
| 317046 | White | $1 / 2^{\prime \prime}$ | $20^{\prime}$ | 17 lbs |
| 317051 | White | $1 / 2^{\prime \prime}$ | $25^{\prime}$ | 20 lbs |
| 317056 | White | $1 / 2^{\prime \prime}$ | $30^{\prime}$ | 24 lbs |
| 317061 | White | $5 / 8^{\prime \prime}$ | $20^{\prime}$ | 29 lbs |
| 317063 | White | $5 / 8^{\prime \prime}$ | $25^{\prime}$ | 32 lbs |
| 317066 | White | $5 / 8^{\prime \prime}$ | $30^{\prime}$ | 34 lbs |
| 317071 | White | $5 / 8^{\prime \prime}$ | $35^{\prime}$ | 35 lbs |



## (ave) Utility



## 3 Strand Polypropylene Conduit Rope

Spliceable rope with good dielectric properties. May be stored wet without fiber damage. Uses include; T \& D stringing lines, conduit pulling lines and hand lines.

| Item No | Diameter | Length | Minimum <br> Tensile | Approx <br> Wt lt |
| :---: | :---: | ---: | :---: | ---: |
| 304003 | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | 300 lbs | 3 lbs |
| 304005 | $1 / 8^{\prime \prime}$ | $3,000^{\prime}$ | 300 lbs | 9 lbs |
| 300010 | $3 / 16^{\prime \prime}$ | $600^{\prime}$ | 650 lbs | 5 lbs |
| 300015 | $3 / 16^{\prime \prime}$ | $1,200^{\prime}$ | 650 lbs | 10 lbs |
| 304025 | $3 / 16^{\prime \prime}$ | $3,000^{\prime}$ | 650 lbs | 21 lbs |
| 304027 | $3 / 16^{\prime \prime}$ | $3,600^{\prime}$ | 650 lbs | 25 lbs |
| 300035 | $1 / 4^{\prime \prime}$ | $600^{\prime}$ | $1,125 \mathrm{lbs}$ | 8 lbs |
| 300040 | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | $1,125 \mathrm{lbs}$ | 16 lbs |
| 304042 | $1 / 4^{\prime \prime}$ | $2,000^{\prime}$ | $1,125 \mathrm{lbs}$ | 14 lbs |
| 304045 | $1 / 4^{\prime \prime}$ | $2,400^{\prime}$ | $1,125 \mathrm{lbs}$ | 26 lbs |
| 304050 | $1 / 4^{\prime \prime}$ | $4,000^{\prime}$ | $1,125 \mathrm{lbs}$ | 44 lbs |
| 304060 | $1 / 4^{\prime \prime}$ | $25,000^{\prime}$ | $1,125 \mathrm{lbs}$ | 280 lbs |
| 304070 | $5 / 16^{\prime \prime}$ | $5,000^{\prime}$ | $1,710 \mathrm{lbs}$ | 72 lbs |
| 300075 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $2,430 \mathrm{lbs}$ | 16 lbs |
| 300080 | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $2,430 \mathrm{lbs}$ | 32 lbs |
| 304100 | $3 / 8^{\prime \prime}$ | $2,500^{\prime}$ | $2,430 \mathrm{lbs}$ | 60 lbs |
| 304105 | $3 / 8^{\prime \prime}$ | $3,600^{\prime}$ | $2,430 \mathrm{lbs}$ | 90 lbs |

## Polyester Conduit Pulling Tape

Preferred choice for underground measuring and pulling of fiber optic and other lightweight cables. Specially designed for the telecommunications and power utility industries. Sequential foot markings allow for accurate measurement while flat woven construction and specially formulated lubricants work to minimize friction and duct cutting. Uses include; fiber optic and other lightweight cable pulls.

| Item No | Diameter | Length | Approx <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| $179004^{*}$ | $3 / 16^{\prime \prime}$ | $3,000^{\prime}$ | 160 lbs | 4.5 lbs |
| 179105 | $1 / 4^{\prime \prime}$ | $3,000^{\prime}$ | 400 lbs | 11 lbs |
| 179118 | $1 / 2^{\prime \prime}$ | $1,500^{\prime}$ | 400 lbs | 13 lbs |
| 179120 | $1 / 2^{\prime \prime}$ | $3,000^{\prime}$ | $1,250 \mathrm{lbs}$ | 26 lbs |
| 179125 | $1 / 2^{\prime \prime}$ | $5,000^{\prime}$ | $1,250 \mathrm{lbs}$ | 40 lbs |
| 179135 | $5 / 8^{\prime \prime}$ | $3,000^{\prime}$ | $1,800 \mathrm{lbs}$ | 34 lbs |
| 179140 | $5 / 8^{\prime \prime}$ | $5,000^{\prime}$ | $1,800 \mathrm{lbs}$ | 55 lbs |
| 179145 | $5 / 8^{\prime \prime}$ | $10,000^{\prime}$ | $1,800 \mathrm{lbs}$ | 155 lbs |
| 179008 | $3 / 4^{\prime \prime}$ | $1,000^{\prime}$ | $2,500 \mathrm{lbs}$ | 19 lbs |
| 179174 | $3 / 4^{\prime \prime}$ | $1,500^{\prime}$ | $2,500 \mathrm{lbs}$ | 26 lbs |
| 179010 | $3 / 4^{\prime \prime}$ | $3,000^{\prime}$ | $2,500 \mathrm{lbs}$ | 50 lbs |
| 179177 | $3 / 4^{\prime \prime}$ | $5,000^{\prime}$ | $2,500 \mathrm{lbs}$ | 80 lbs |
| *Packaged 8 spools per carton |  |  |  |  |

## KEVLAR ${ }^{\text {m" }}$ Pulling Tape

Produced using high tenacity, high strength aramid yarns. These tapes offer the highest strength per width along with low elongation. Aramid fibers limiting oxygen index (LOI) allows the tapes to be used in plenum duct applications where flame resistant requirements exist.

| Item No | Diameter | Length | Construction | Approx <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :--- | :---: | :---: |
| 179200 | $3 / 8^{\prime \prime}$ | $3,000^{\prime}$ | Woven | $1,250 \mathrm{lbs}$ | 13 lbs |
| 179201 | $1 / 2^{\prime \prime}$ | $3,000^{\prime}$ | Woven | $2,500 \mathrm{lbs}$ | 20 lbs |

## Double Braid Polyester Pulling Rope with Eyes

High strength, low stretch, torque free, especially suited for prolonged outdoor exposure. Good dielectric properties. Factory spliced eyes at each end. Uses include: T \& D stringing lines, winch lines and hand lines. Urethane coating available.

| Item No | Diameter | Length | Minimum <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 347043 | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | $4,800 \mathrm{lbs}$ | 29 lbs |
| 347473 | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | $8,400 \mathrm{lbs}$ | 33 lbs |
| 347475 | $5 / 8^{\prime \prime}$ | $600^{\prime}$ | $12,300 \mathrm{lbs}$ | 117 lbs |
| 348115 | $3 / 4^{\prime \prime}$ | $600^{\prime}$ | $17,400 \mathrm{lbs}$ | 168 lbs |
| 348116 | $3 / 4^{\prime \prime}$ | $1,200^{\prime}$ | $17,400 \mathrm{lbs}$ | 336 lbs |
| 348124 | $7 / 8^{\prime \prime}$ | $600^{\prime}$ | $24,000 \mathrm{lbs}$ | 229 lbs |
| 348114 | $7 / 8^{\prime \prime}$ | $1,200^{\prime}$ | $24,000 \mathrm{lbs}$ | 457 lbs |
| 348127 | $1^{\prime \prime}$ | $600^{\prime}$ | $31,200 \mathrm{lbs}$ | 300 lbs |

## Conduit Pull Line - Buckets

Strong monofilament polypropylene blow twine. Ties easily and holds a knot well. Uses include; blow lines and cable tying twine.

| Item No | Color(s) | Length | Approx <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 027014 | White/Blue | $6,500^{\prime}$ | 210 lbs | 10 lbs |
| 027505 | White/Yellow | $5,200^{\prime}$ | 240 lbs | 10 lbs |
| 027440 | White/Red | $2,200^{\prime}$ | 500 lbs | 10 lbs |

Conduit Pull Line - Gartons

| Item No | Color(s) | Length | Approx <br> Tensile | Approx <br> Wt |
| :---: | :---: | :---: | :---: | :---: |
| 027013 | White/Blue | 6,500 | 210 lbs | 10 lbs |


| Conduit Pull Line $\boldsymbol{\text { - Tubes }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Color(s) | Length | Approx <br> Tensile | Approx |
| 027016 | White/Blue | $6,500^{\prime}$ | 210 lbs | 10 lbs |
| 027500 | White/Yellow | $5,200^{\prime}$ | 240 lbs | 10 lbs |
| 027430 | White/Red | $2,200^{\prime}$ | 500 lbs | 10 lbs |



## (4W) Cords



## Hollow Braid Monofilament Polypropylene

Sometimes called Diamond Braid, this easy to splice floating rope is one of the most versatile and widely used ropes today. It will not rot or mildew and has good knot holding ability with great resistance to deterioration from oil, grease, and most chemicals.

| Item No | Size | Diameter | Length | Color | Average <br> Tensile | Approx <br> Wt/Spool |
| ---: | :---: | :---: | ---: | :---: | ---: | ---: |
| 100005 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | 230 lbs | 4 lbs |
| 100010 | $\# 6$ | $3 / 16^{\prime \prime}$ | $500^{\prime}$ | Yellow | 690 lbs | 3 lbs |
| 100015 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | 690 lbs | 6 lbs |
| 100026 | $\# 8$ | $1 / 4^{\prime \prime}$ | $400^{\prime}$ | Yellow | 990 lbs | 4 lbs |
| 100030 | $\# 8$ | $1 / 4^{\prime \prime}$ | $500^{\prime}$ | Yellow | 990 lbs | 5 lbs |
| 100035 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | 990 lbs | 9 lbs |
| 100050 | $\# 10$ | $5 / 16^{\prime \prime}$ | $300^{\prime}$ | Yellow | $1,238 \mathrm{lbs}$ | 5 lbs |
| 100055 | $\# 10$ | $5 / 16^{\prime \prime}$ | $500^{\prime}$ | Yellow | $1,238 \mathrm{lbs}$ | 8 lbs |
| 100060 | $\# 10$ | $5 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | $1,238 \mathrm{lbs}$ | 15 lbs |
| 100070 | $\# 12$ | $3 / 8^{\prime \prime}$ | $300^{\prime}$ | Yellow | $1,980 \mathrm{lbs}$ | 6 lbs |
| 100075 | $\# 12$ | $3 / 8^{\prime \prime}$ | $500^{\prime}$ | Yellow | $1,980 \mathrm{lbs}$ | 9 lbs |
| 100100 | $\# 12$ | $3 / 8^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | $1,980 \mathrm{lbs}$ | 19 lbs |
| 100105 | $\# 16$ | $1 / 2^{\prime \prime}$ | $300^{\prime}$ | Yellow | $2,880 \mathrm{lbs}$ | 9 lbs |
| 100110 | $\# 16$ | $1 / 2^{\prime \prime}$ | $500^{\prime}$ | Yellow | $2,880 \mathrm{lbs}$ | 14 lbs |
| 100115 | $\# 16$ | $1 / 2^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | $2,880 \mathrm{lbs}$ | 29 lbs |
| 100130 | $\# 20$ | $5 / 8^{\prime \prime}$ | $500^{\prime}$ | Yellow | $6,500 \mathrm{lbs}$ | 30 lbs |
| 100135 | $\# 20$ | $5 / 8^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | $6,500 \mathrm{lbs}$ | 60 lbs |
| 100140 | $\# 24$ | $3 / 4^{\prime \prime}$ | $500^{\prime}$ | Yellow | $7,500 \mathrm{lbs}$ | 43 lbs |
| 100027 | $\# 8$ | $1 / 4^{\prime \prime}$ | $400^{\prime}$ | Orange | 990 lbs | 4 lbs |
| 100047 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,000^{\prime}$ | Orange | 990 lbs | 9 lbs |
| 100292 | $\# 6$ | $3 / 16^{\prime \prime}$ | $660^{\prime}$ | Green | 690 lbs | 4 lbs |
| 100293 | $\# 6$ | $3 / 1 "^{\prime \prime}$ | $1,320^{\prime}$ | Green | 690 lbs | 8 lbs |
| 100294 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,980^{\prime}$ | Green | 990 lbs | 18 lbs |
| 100295 | $\# 8$ | $1 / 4^{\prime \prime}$ | $660^{\prime}$ | Green | 990 lbs | 7 lbs |
| 100296 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,320^{\prime}$ | Green | 990 lbs | 13 lbs |
| 100297 | $\# 10$ | $5 / 16^{\prime \prime}$ | $660^{\prime}$ | Green | $1,238 \mathrm{lbs}$ | 10 lbs |
| 100298 | $\# 12$ | $3 / 8^{\prime \prime}$ | $600^{\prime}$ | Green | $1,980 \mathrm{lbs}$ | 11 lbs |
| 100299 | $\# 16$ | $1 / 2^{\prime \prime}$ | $600^{\prime}$ | Green | $2,880 \mathrm{lbs}$ | 17 lbs |
|  |  |  |  |  |  |  |

## Solid Braid Monofilament Polypropylene

Lightweight, round, firm, floats, resistant to deterioration from oil, grease and most common chemicals.

| Item No | Size | Diameter | Length | Average <br> Tensile | Approx <br> Wt/Spool |
| ---: | ---: | :---: | :---: | ---: | ---: |
| 116030 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,000^{\prime}$ | 875 lbs | 10 lbs |
| 116050 | $\# 12$ | $3 / 8^{\prime \prime}$ | $1,000^{\prime}$ | $1,900 \mathrm{lbs}$ | 23 lbs |

## Solid Braid Multifiament Polypropylene - Hanks

Soft pliable hand line, lightweight, round, firm, floats, resistant to deterioration from oil, grease and most common chemicals.

| Item No | Size | Diameter | Length | Qty/Ctn | Approx <br> Wt/Dozen |
| :---: | :---: | :---: | ---: | ---: | ---: |
| 115270 | $\# 8$ | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | 12 | 9 lbs |
| 115275 | $\# 8$ | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 14 lbs |
| 115285 | $\# 10$ | $5 / 6^{\prime \prime}$ | $100^{\prime}$ | 12 | 24 lbs |
| 115295 | $\# 12$ | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | 35 lbs |


| Diamond Braid Sensor Cord |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Diameter | Length | Description | Approx <br> Wt/Spool |
| 116051 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | Yellow Polypro | 4.5 lbs |
| 116052 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | White Polyester | 5.0 lbs |
| 116053 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | Yellow Polyester <br> w/ Kevlar | 5.0 lbs |

## Solid Braid NyIon Gord

An extremely strong, soft, lightweight cord with excellent resistance to rot, abrasion, mildew, petroleum products and most chemicals. It has a shockabsorbing elasticity that allows it to withstand great strain. Solid braided construction stays round and works well in pulleys.

| Item No | Size | Diameter | Spool <br> Length | Average <br> Tensile | Approx <br> Wt/Spool |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 105005 | $\# 3$ | $3 / 32^{\prime \prime}$ | $1,000^{\prime}$ | 185 lbs | 3 lbs |
| 105735 | $\# 4$ | $1 / 8^{\prime \prime}$ | $50^{\prime}$ | 575 lbs | .15 lbs |
| 105218 | $\# 4$ | $1 / 8^{\prime \prime}$ | $100^{\prime}$ | 575 lbs | .3 lbs |
| 105003 | $\# 4$ | $1 / 8^{\prime \prime}$ | $600^{\prime}$ | 575 lbs | 2 lbs |
| 105025 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | 575 lbs | 4 lbs |
| 105030 | $\# 5$ | $5 / 32^{\prime \prime}$ | $500^{\prime}$ | 720 lbs | 3 lbs |
| 105035 | $\# 5$ | $5 / 32^{\prime \prime}$ | $1,000^{\prime}$ | 720 lbs | 7 lbs |
| 105233 | $\# 6$ | $3 / 16^{\prime \prime}$ | $50^{\prime}$ | 825 lbs | .4 lbs |
| 105235 | $\# 6$ | $3 / 16^{\prime \prime}$ | $100^{\prime}$ | 825 lbs | .8 lbs |
| 105140 | $\# 6$ | $3 / 16^{\prime \prime}$ | $475^{\prime}$ | 825 lbs | 4 lbs |
| 105045 | $\# 6$ | $3 / 16^{\prime \prime}$ | $500 '$ | 825 lbs | 4 lbs |
| 105050 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | 975 lbs | 9 lbs |
| 105054 | $\# 7$ | $7 / 32$ | $1,000^{\prime \prime}$ | 975 lbs | 11 lbs |
| 105145 | $\# 8$ | $1 / 4^{\prime \prime}$ | $200^{\prime}$ | $1,325 \mathrm{lbs}$ | 5 lbs |



100 foot hanks come connected and shrink wrapped. They are white and are only sold one dozen per carton.

| Item No | Size | Size | Ft/Hank | Average <br> Tensile | Approx <br> Wt/Dozen |
| :---: | :---: | :---: | ---: | :---: | ---: |
| 105220 | $\# 6$ | $3 / 16^{\prime \prime}$ | $50^{\prime}$ | 825 lbs | 5 lbs |
| 105225 | $\# 6$ | $3 / 16^{\prime \prime}$ | $100^{\prime}$ | 825 lbs | 10 lbs |
| 105240 | $\# 8$ | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | $1,325 \mathrm{lbs}$ | 7 lbs |
| 105245 | $\# 8$ | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | $1,325 \mathrm{lbs}$ | 15 lbs |
| 105250 | $\# 10$ | $5 / 16^{\prime \prime}$ | $50^{\prime}$ | $1,925 \mathrm{lbs}$ | 15 lbs |
| 105255 | $\# 10$ | $5 / 16^{\prime \prime}$ | $100^{\prime}$ | $1,925 \mathrm{lbs}$ | 19 lbs |
| 105260 | $\# 12$ | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | $2,800 \mathrm{lbs}$ | 21 lbs |

## (4W) Cords



| Synthetic Utility Cord - Hanks |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Diameter | Length | Qty/Ctn | Approx Wt/Dozen |
| 161005 | \#4 | 1/8" | 48' | 12 | 2 lbs |
| 161010 | \#4 | 1/8" | $100{ }^{\prime}$ | 12 | 5 lbs |


| Synthetic |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No Paracord | Lenth | Color | Approx <br> Wt/Tube |  |  |
| 161200 | \#6 | Diameter | Length | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ |
| 161205 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Yellow | 5 lbs |
| 161210 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Red | 5 lbs |
| 161215 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Brown | 5 lbs |
| 161220 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Purple | 5 lbs |
| 161225 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Blue | 5 lbs |
| 161230 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Green | 5 lbs |
| 161240 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | White | 5 lbs |
| 161245 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Tan | 5 lbs |
| 161250 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | Royal Blue | 5 lbs |

## Synthetic Starter Cord

| Item No | Size | Diameter | Length | Average Tensile | Approx <br> Wt/Spool |
| :---: | :---: | :---: | ---: | :---: | ---: |
| 106110 | $\# 4$ | $1 / 8^{\prime \prime}$ | $250^{\prime}$ | 300 lbs | 1 lbs |
| 106115 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,000^{\prime}$ | 300 lbs | 5 lbs |
| 106120 | $\# 5$ | $5 / 32^{\prime \prime}$ | $250^{\prime}$ | 500 lbs | 2 lbs |
| 106125 | $\# 5$ | $5 / 32^{\prime \prime}$ | $1,000^{\prime}$ | 500 lbs | 7 lbs |
| 106130 | $\# 6$ | $3 / 16^{\prime \prime}$ | $250^{\prime}$ | 600 lbs | 2 lbs |
| 106135 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,000^{\prime}$ | 600 lbs | 10 lbs |
| 106140 | $\# 8$ | $1 / 4^{\prime \prime}$ | $250^{\prime}$ | $1,050 \mathrm{lbs}$ | 2 lbs |
| 106145 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,000^{\prime}$ | $1,050 \mathrm{lbs}$ | 13 lbs |

## Premium Sash Cord - Hanks

This cord has an interlocking solid braid construction, a durable composite cotton cover, and is polished with a weather resistant coating. It also has a synthetic reinforcing core. Hanks are 100' connected and shrink wrapped.

| Item No | Size | Diameter | Length | Qty/Ctn | Average <br> Tensile | Approx <br> Wt/Ctn |
| :---: | ---: | :---: | :---: | :---: | :---: | :---: |
| 120005 | $\# 6$ | $3 / 16^{\prime \prime}$ | $100^{\prime}$ | 12 | 260 lbs | 12 lbs |
| 120010 | $\# 7$ | $7 / 32^{\prime \prime}$ | $100^{\prime}$ | 12 | 330 lbs | 17 lbs |
| 120015 | $\# 8$ | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 600 lbs | 22 lbs |
| 120020 | $\# 10$ | $5 / 16^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,000 \mathrm{lbs}$ | 34 lbs |
| 120025 | $\# 12$ | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,200 \mathrm{lbs}$ | 41 lbs |
| 120030 | $\# 16$ | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,400 \mathrm{lbs}$ | 60 lbs |

## Premium Sash Cord - Black Hanks

| Item No | Size | Diameter | Length | Qty/Ctn | Average <br> Tensile | Approx <br> Wt/Dozen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 124350 | $\# 6$ | $3 / 16^{\prime \prime}$ | $100^{\prime}$ | 12 | 260 lbs | 12 lbs |
| 124355 | $\# 8$ | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 600 lbs | 17 lbs |
| 124360 | $\# 10$ | $5 / 16^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,000 \mathrm{lbs}$ | 34 lbs |
| 124365 | $\# 12$ | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,400 \mathrm{lbs}$ | 41 lbs |

## Premium Sash Cord - Spools

| Item No | Size | Diameter | Length | Qty/Ctn | Average <br> Tensile | Approx <br> Wt//Spool |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 120031 | $\# 6$ | $3 / 16 "$ | $1,200^{\prime}$ | 1 | 260 lbs | 12 lbs |
| 120041 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,200^{\prime}$ | 1 | 600 lbs | 22 lbs |
| 120046 | $\# 10$ | $5 / 16 "$ | $1,200^{\prime}$ | 1 | $1,000 \mathrm{lbs}$ | 34 lbs |
| 120051 | $\# 12$ | $3 / 8^{\prime \prime}$ | $1,200^{\prime}$ | 1 | $1,200 \mathrm{lbs}$ | 41 lbs |
| 120052 | $\# 16$ | $1 / 2^{\prime \prime}$ | $1,000^{\prime}$ | 1 | $1,400 \mathrm{lbs}$ | 46 lbs |


| SPOT $^{\text {Tm }}$ Sash Cord - Hanks |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Diameter | Length | Qty/Ctn | Average <br> Tensile | Approx <br> Wt/Ctn |
| 123200 | $\# 6$ | $3 / 16 "$ | $100^{\prime}$ | 12 | 700 lbs | 14 lbs |
| 123205 | $\# 7$ | $7 / 32 "$ | $50^{\prime}$ | 12 | 830 lbs | 9 lbs |
| 123210 | $\# 7$ | $7 / 32^{\prime \prime}$ | $100^{\prime}$ | 12 | 830 lbs | 18 lbs |
| 123215 | $\# 8$ | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | $1,000 \mathrm{lbs}$ | 24 lbs |
| 123225 | $\# 10$ | $5 / 16 "$ | $100^{\prime \prime}$ | 12 | $1,600 \mathrm{lbs}$ | 34 lbs |
| 123230 | $\# 12$ | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | $2,000 \mathrm{lbs}$ | 49 lbs |
| 123231 | $\# 16$ | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 6 | $3,600 \mathrm{lbs}$ | 42 lbs |


| SPOT ${ }^{\text {TM }}$ Sash Cord - Spools |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Diameter | Length | Qty/Ctn | Average Tensile | Approx Wt/Spool |
| 123220 | \#8 | 1/4" | 1,200' | 1 | 1,000 lbs | 24 lbs |
| 123221 | \#10 | 5/16" | 1,200' | 1 | 1,600 lbs | 34 lbs |
| 123240 | \#12 | 3/8" | 1,200' | 1 | 2,000 lbs | 49 lbs |
| 1 |  | - | , |  | , |  |
| 100\% Cotton Weeping Cord - Hanks |  |  |  |  |  |  |
| Item No | Size | Diameter | Length | Qty/Ctn | Average Tensile | Approx Wt/Dozen |
| 124708 | \#8 | 1/4" | $100{ }^{\prime}$ | 12 | 180 lbs | 14 lbs |
| 124710 | \#10 | 5/16" | 100' | 12 | 230 lbs | 26 lbs |
| 124718 | \#12 | 3/8" | 100 | 12 | 240 lbs | 32 lbs |

## (W0) Cords



## Awning Cord

Constructed with tight interlacing cotton yarns. This construction permits core fibers to be used for the purpose of adding strength. Diamond braided cord may be used for a variety of applications.

| Item No | Size | Diameter | Length | Approx Wt/Tube |
| :---: | :--- | :---: | :---: | :---: |
| 125105 | $\# 4$ | $1 / 8^{\prime \prime}$ | $1,500^{\prime}$ | 7 lbs |
| 125110 | $\# 4-1 / 2$ | $9 / 64^{\prime \prime}$ | $1,500^{\prime}$ | 11 lbs |
| 125115 | $\# 5$ | $5 / 32^{\prime \prime}$ | $1,500^{\prime}$ | 13 lbs |
| 125120 | $\# 6$ | $3 / 16^{\prime \prime}$ | $1,500^{\prime}$ | 16 lbs |
| 125125 | $\# 8$ | $1 / 4^{\prime \prime}$ | $1,500^{\prime}$ | 27 lbs |

## Venetian Blind Cord

Constructed stiffer than solid braid. This cord is very flexible and knots easily. It is a maypole braided cotton over a synthetic core and is an excellent drapery \& traverse cord.

| Item No | Size | Diameter | Length | Color | Approx Wt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 136078 | \#4 | 1/8" | 3,000' | White | 14 lbs Spool |
| 136060 | \#4 | 1/8" | 50' (Hank) | Black | 4 lbs Dozen |
| 136065 | \#4-1/2 | 9/64" | 48' (Hank) | White | 5 lbs Dozen |
| 160013 | \#4 | 1/8" | 600' | Black | 3 lbs Spool |
| 160019 | \#4 | 1/8" | 3,000' | Black | 14 lbs Spool |
| 160029 | \#4-1/2 | 9/64" | 600' | Black | 5 lbs Spool |
| 160041 | \#4-1/2 | 9/64" | 3,000' | Black | 16 Ibs Spool |
| 136061 | \#4 | 1/8" | 48' (Hank) | Black | 4 lbs Dozen |
| 136206 | \#4 | 1/8" | 50' (Hank) | White | 4 lbs Dozen |

## Solid Braid Multifilament Poly Rope - In Colors

Excellent halter \& lead rope. It is very soft and supple and handles exceptionally well. It is strong and durable, and it is resistant to rot, abrasion and grease. It also floats.

| Item No | Diameter | Length | Color | Approx Wt |
| :---: | :---: | :---: | :---: | :---: |
| 115315 | 3/8" | 500' | Green/White | 15 lbs |
| 115320 | 3/8" | 500 | Blue/White | 15 lbs |
| 115325 | 3/8" | 500' | Red/White | 15 lbs |
| 115310 | 3/8" | 500' | Green | 15 lbs |
| 115300 | 3/8" | 500' | Blue | 15 lbs |
| 115316 | 27/64" | 500' | Green/White | 18 lbs |
| 115321 | 27/64" | 500' | Blue/White | 18 lbs |
| 115326 | 27/64" | 500 | Red/White | 18 lbs |
| 115331 | 27/64" | 500' | Black/White | 18 lbs |
| 115421 | 5/8" | 200' | Yellow | 15 lbs |
| 115450 | 5/8" | 200' | Blue/White | 15 lbs |
| 115453 | 5/8" | 200' | Navy/White | 15 lbs |
| 115454 | 5/8" | 200' | Blue/Silver | 15 lbs |
| 115460 | 5/8" | 200' | Red/White | 15 lbs |
| 115465 | 5/8" | 200' | Black/White | 15 lbs |
| 115467 | 5/8" | 200' | Black/Silver | 15 lbs |
| 115470 | 5/8" | 200' | Brown/White | 15 lbs |
| 115480 | 5/8" | 200' | Burgundy/White | 15 lbs |
| 115485 | 5/8" | 200' | Burgundy/Silver | 15 lbs |
| 115405 | 5/8" | 200' | White | 15 lbs |
| 115410 | 5/8" | 200' | Blue | 15 lbs |
| 115411 | 5/8" | 200' | Navy Blue | 15 lbs |
| 115413 | 5/8" | 200' | Turquoise | 15 lbs |
| 115414 | 5/8" | 200' | Teal | 15 lbs |
| 115415 | 5/8" | 200' | Green | 15 lbs |
| 115416 | 5/8" | 200' | Hunter Green | 15 lbs |
| 115420 | 5/8" | 200' | Red | 15 lbs |
| 115423 | 5/8" | 200' | Orange | 15 lbs |
| 115425 | 5/8" | 200' | Burgundy | 15 lbs |
| 115427 | 5/8" | 200' | Purple | 15 lbs |
| 115428 | 5/8" | 200' | Raspberry | 15 lbs |
| 115430 | 5/8" | 200' | Black | 15 lbs |
| 115435 | 5/8" | 200' | Brown | 15 lbs |
| 115440 | 5/8" | 200' | Silver | 15 lbs |
| 115445 | 5/8" | 200' | Gold | 15 lbs |
| 115455 | 5/8" | 200' | Green/White | 15 lbs |

## Premium Shock / Bungee Cord

An elastic cord constructed with many continuous strands of filament rubber protected with an abrasion resistant synthetic fiber jacket. It has unlimited uses in boating, camping, homes, luggage tie downs, bicycles, motorcycles, trucks, trailers and car-top carriers.

| Item No | Size | Diameter | Length | Color | Approx <br> Tensile | Approx <br> Wt/Spool |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| 162001 | $\# 4$ | $1 / 8^{\prime \prime}$ | $250^{\prime}$ | White | 60 lbs | 2 lbs |
| 162002 | $\# 4$ | $1 / 8^{\prime \prime}$ | $250^{\prime}$ | Black | 60 lbs | 2 lbs |
| 162005 | $\# 6$ | $3 / 16^{\prime \prime}$ | $250^{\prime}$ | White | 80 lbs | 4 lbs |
| 162006 | $\# 6$ | $3 / 16^{\prime \prime}$ | $250^{\prime}$ | Black | 80 lbs | 4 lbs |
| 162015 | $\# 8$ | $1 / 4^{\prime \prime}$ | $250^{\prime}$ | White | 100 lbs | 6 lbs |
| 162016 | $\# 8$ | $1 / 4^{\prime \prime}$ | $250^{\prime}$ | Black | 100 lbs | 6 lbs |
| 162025 | $\# 10$ | $5 / 16^{\prime \prime}$ | $250^{\prime}$ | White | 170 lbs | 10 lbs |
| 162026 | $\# 10$ | $5 / 16^{\prime \prime}$ | $250^{\prime}$ | Black | 170 lbs | 10 lbs |
| 162035 | $\# 12$ | $3 / 8^{\prime \prime}$ | $250^{\prime}$ | White | 190 lbs | 14 lbs |
| 162073 | $\# 12$ | $3 / 8^{\prime \prime}$ | $250^{\prime}$ | Black | 190 lbs | 14 lbs |
| 162040 | $\# 16$ | $1 / 2^{\prime \prime}$ | $150^{\prime}$ | White | 275 lbs | 15 lbs |
| 162050 | $\# 16$ | $1 / 2^{\prime \prime}$ | $250^{\prime}$ | White | 275 lbs | 24 lbs |
| 162075 | $\# 16$ | $1 / 2^{\prime \prime}$ | $250^{\prime}$ | Black | 275 lbs | 24 lbs |
| 162080 | $\# 20$ | $5 / 8^{\prime \prime}$ | $150^{\prime}$ | White | 300 lbs | 35 lbs |
| 162077 | $\# 24$ | $3 / 4^{\prime \prime}$ | $250^{\prime}$ | Black | 325 lbs | 49 lbs |


| Black Shock Cord Hooks - Plastic Coated |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Size | Qty/Ctn | Approx Wt/Ctn |
| 162200 | $3 / 16^{\prime \prime}$ | 50 | 4 lbs |
| 162205 | $1 / 4^{\prime \prime}$ | 50 | 4 lbs |
| 162210 | $5 / 16^{\prime \prime}$ | 50 | 4 lbs |
| 162215 | $3 / 8^{\prime \prime}$ | 50 | 4 lbs |
| 162220 | $1 / 2^{\prime \prime}$ | 50 | 4 lbs |

Rubber Tarp Snubbers with Hooks

| Item No | Length/With Hooks | Qty/Ctn | Approx Wt/Ctn |
| :---: | :---: | :---: | :---: |
| 163005 | $10 "-14^{\prime \prime}$ | 50 | 10 lbs |
| 163010 | $15^{\prime \prime}-19 "$ | 50 | 12 lbs |
| 163015 | $21^{\prime \prime}-25^{\prime \prime}$ | 50 | 14 lbs |
| 163020 | $31 "-35^{\prime \prime}$ | 50 | 19 lbs |
| 163025 | $41^{\prime \prime}-45^{\prime \prime}$ | 50 | 25 lbs |

Black Rubber Rope - Solid

| Item No | Size | Ft/Coil | Approx Wt/Coil |
| :---: | :---: | :---: | :---: |
| 163108 | $3 / 8^{\prime \prime}$ | $150^{\prime}$ | 9 lbs |
| 163113 | $7 / 16^{\prime \prime}$ | $150^{\prime}$ | 11 lbs |


| Hooks |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Description | Pack | Approx Wt/Ctn |
| 163105 | "J" Hooks | $100 / \mathrm{Ctn}$ | 5 lbs |
| 163107 | "S" Hooks | $100 / \mathrm{Bg}$ | 5 lbs |



## (CWe) Twines



## Twisted Nylon Seine Twine

Top grade twisted from 100\% filament nylon. Excellent abrasion resistant, rot, mildew, petroleum products and most common chemicals. Retail packaged, sold by the carton, each labeled, shrink wrapped and UPC coded. One dozen per carton.

| Item No | Tube Weight | Color | Size | Length | Approx Wt/Ctn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 135015 | 4 oz | White | \#9 | 525' | 3 lbs |
| 135025 | 4 oz | White | \#15 | 375' | 3 lbs |
| 135055 | 4 oz | Yellow | \#15 | 375 | 3 lbs |
| 135050 | 4 oz | White | \#36 | 120' | 3 lbs |
| 135031 | 4 oz | White | \#18 | 275 | 3 lbs |
| 135032 | 4 oz | Flour-Pink | \#18 | 275' | 3 lbs |
| 135034 | 4 oz | Flour-Orange | \#18 | 275' | 3 lbs |
| 135059 | 4 oz | Flour-Yellow | \#18 | 275' | 3 lbs |
| 135061 | 4 oz | Yellow | \#18 | 275' | 3 lbs |
| 135105 | 8 oz | Yellow | \#15 | 570' | 6 lbs |
| 135071 | 8 oz | White | \#18 | $550 '$ | 6 lbs |
| 135072 | 8 oz | Flour-Pink | \#18 | 550' | 6 lbs |
| 135074 | 8 oz | Flour-Orange | \#18 | 550' | 6 lbs |
| 135108 | 8 oz | Flour-Yellow | \#18 | 550' | 6 lbs |
| 135109 | 8 oz | Yellow | \#18 | 550' | 6 lbs |
| 135124 | 16 oz | Flour-Orange | \#18 | 1,100' | 12 lbs |
| 135126 | 16 oz | White | \#18 | 1,100' | 12 lbs |
| 135127 | 16 oz | Flour-Pink | \#18 | 1,100' | 12 lbs |
| 135139 | 16 oz | Flour-Yellow | \#18 | 1,100' | 12 lbs |
| 135141 | 16 oz | Yellow | \#18 | 1,100' | 12 lbs |

## Braided Nylon Seine Twine

Top grade 100\% filament nylon braided into a strong twine that ties easily and holds knots securely. Excellent resistance to abrasion, rot, mildew, petroleum products and common chemicals. Retail packaged, sold by the carton, each labeled, shrink wrapped and UPC coded. One dozen per carton.

| Item No | Tube Weight | Color | Size | Length | Approx Wt/Ctn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 134004 | 4 oz | White | \#18 | $275{ }^{\prime}$ | 3 lbs |
| 134008 | 4 oz | Yellow | \#18 | 275' | 3 lbs |
| 134130 | 4 oz | Flour-Yellow | \#18 | $275{ }^{\prime}$ | 3 lbs |
| 134135 | 4 oz | Flour-Pink | \#18 | $275{ }^{\prime}$ | 3 lbs |
| 134140 | 4 oz | Flour-Orange | \#18 | $275{ }^{\prime}$ | 3 lbs |
| 134009 | 8 oz | White | \#18 | $550 '$ | 6 lbs |
| 134013 | 8 oz | Yellow | \#18 | $550 '$ | 6 lbs |
| 134132 | 8 oz | Flour-Yellow | \#18 | $550 '$ | 6 lbs |
| 134137 | 8 oz | Flour-Pink | \#18 | $550 '$ | 6 lbs |
| 134142 | 8 oz | Flour-Orange | \#18 | 550 | 6 lbs |
| 134014 | 16 oz | Yellow | \#18 | 1,100' | 12 lbs |
| 134016 | 16 oz | Green | \#18 | 1,100' | 12 lbs |
| 134018 | 16 oz | White | \#18 | 1,100' | 12 lbs |
| 134129 | 16 oz | Flour-Green | \#18 | 1,100' | 12 lbs |
| 134134 | 16 oz | Flour-Yellow | \#18 | 1,100' | 12 lbs |
| 134139 | 16 oz | Flour-Pink | \#18 | 1,100' | 12 lbs |
| 134144 | 16 oz | Flour-Orange | \#18 | 1,100' | 12 lbs |


| Lumber Braid |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Approx Width | Ft/Lb | Approx Tensile | Tubes /Ctn | Approx Wt/Ctn |
| 159011 | 3/8" | 215' | 210 lbs | 6 | 75 lbs . |


| PRO SERIES ${ }^{\text {mw }}$ Sy | Sythetic Tying Twine - Spiral Wrap |
| :---: | :---: | :--- | :---: | :---: |

2 and 3 ply twines available. 4 boxes per master carton.

| PRO SERIES ${ }^{m}$ Synthetic Tying Twine - Split Film |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Ft/Lb | Color | Approx Tensile | $\begin{aligned} & \text { Approx } \\ & \text { Knot/Break } \end{aligned}$ |
| 025001 | $350 '$ | White | 350 lbs | 240 lbs |
| 025003 | $450{ }^{\prime}$ | White | 260 lbs | 190 lbs |
| 025007 | 550' | White | 210 lbs | 155 lbs |
| 025012 | 650 | White | 180 lbs | 125 lbs |
| 025017 | $750{ }^{\prime}$ | White | 150 lbs | 110 lbs |
| 025022 | 850' | White | 135 lbs | 100 lbs |
| 025032 | 1,050' | White | 110 lbs | 80 lbs |
| 025042 | 1,250' | White | 90 lbs | 70 lbs |
| 025008 | 550' | Black | 210 lbs | 155 lbs |
| 025035 | 1,050' | Black | 110 lbs | 80 lbs |
| 025042 | 1,250' | Black | 90 lbs | 70 lbs |


| PRO LOK ${ }^{\text {m }}$ Tomato Twine |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | FtLb | Color | Approx Tensile | Wt/Tube | Tubes/Ctn |
| 031050 | 1,890' | Pink | 65 lbs | 3.2 lbs | 12 |
| 031055 | 1,890' | Black | 65 lbs | 3.2 lbs | 12 |
| 031100 | 1,890' | Black | 65 lbs | 3 lbs | 1 |
| 031105 | 1,890' | Pink | 65 lbs | 3 lbs | 1 |

## Synthetic Tree Rope

| Item No | Ply | Ft/Lb | Color | Approx <br> Tensile | Tubes/Ctn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 030010 | 1-Ply | $205^{\prime}$ | Black w/Orange | 703 lbs | 8 |
| 030015 | 1-Ply | $205^{\prime}$ | Black w/Orange | 703 lbs | 8 |
| 030020 | 1-Ply | $205^{\prime}$ | Black | 703 lbs | 8 |
| 030025 | 1-Ply | $205^{\prime}$ | Black | 703 lbs | 8 |
| 030050 | 3-Ply | $155^{\prime}$ | Orange | 820 lbs | 9 |



## (1/C) -



| Synthetic Baler Twine |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Sisal Baler Twine - Cold |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | $\begin{aligned} & \mathrm{Ft} / \mathrm{c} \\ & \text { Bale } \end{aligned}$ | $\begin{aligned} & \mathrm{Ft} / \\ & \mathrm{Lb} \end{aligned}$ | Tensile | $\begin{gathered} \text { Knot } \\ \text { Strength } \end{gathered}$ | Tubes/ Ctn | $\begin{aligned} & \text { Bales/ } \\ & \text { Pallet } \end{aligned}$ | $\begin{gathered} \mathrm{Wt} / \\ \text { Bale } \end{gathered}$ |
| 038005 | 9,000' | 231' | 350 lbs | 130 lbs | 2 | 50 | 40 lbs |
| 038010 | 7,200' | 185' | 425 lbs | 160 lbs | 2 | 50 | 40 lbs |
| 038020 | 16,000' | 410' | 190 lbs | 60 lbs | 2 | 50 | 40 lbs |
| Untreated twine available. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Sisal Baler Twine - Creen |  |  |  |  |  |  |  |
| Item No | $\begin{aligned} & \mathrm{Ft} / \mathrm{c} \\ & \text { Bale } \end{aligned}$ | $\begin{aligned} & \mathrm{Ft} / \\ & \mathrm{Lb} \end{aligned}$ | Tensile | Knot Strength | Tubes/ Ctn | $\begin{aligned} & \text { Bales/ } \\ & \text { Pallet } \end{aligned}$ | $\begin{aligned} & \text { Wt/ } \\ & \text { Bale } \end{aligned}$ |
| 038013 | 9,000' | 231' | 350 lbs | 130 lbs | 2 | 50 | 40 lbs |
| 038012 | 7,200' | 185' | 425 lbs | 160 lbs | 2 | 50 | 40 lbs |
| 038021 | 16,000' | 410' | 190 lbs | 60 lbs | 2 | 50 | 40 lbs |
| Untreated twine available. |  |  |  |  |  |  |  |


|  | Baler Net Wrap |  |
| :---: | :---: | :--- |
| Item No | Width | Length |
| 052410 | $48^{\prime \prime}$ | $9,840^{\prime}$ |
| 052430 | $64^{\prime \prime}$ | $6,560^{\prime}$ |
| 052440 | $64^{\prime \prime}$ | $7,000^{\prime}$ |
| 052450 | $67^{\prime \prime}$ | $6,560^{\prime}$ |


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Silage Wrap |  |  |  |  |
| Item No | Width | Length | Gauge | Color |
| 052550 | $20^{\prime \prime}$ | $6,000^{\prime}$ | 1.0 mil | White |
| 052535 | $30^{\prime \prime}$ | $5,000^{\prime}$ | 1.0 mil | White |


| Sisal Twine |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Ply | Approx Yield/Lb | Approx Tensile | Put-Up |
| 042005 | 1-Ply | 360' | 200 lbs | 6/\#10 Tubes |
| 042121 | 1-Ply | $300{ }^{\prime}$ | 240 lbs | 6/\#10 Tubes |
| 042010 | 2-Ply | 176' | 360 lbs | 6/\#10 Tubes |
| 042122 | 2-Ply | 176' | 425 lbs | 6/\#10 Tubes |
| 042015 | 3-Ply | 88' | 600 lbs | 6/\#10 Tubes |
| 042123 | 3-Ply | 88' | 600 lbs | 6/\#10 Tubes |
| 042103 | 1-Ply | 3001 | 240 lbs | 10/\#5 Tubes |
| 042105 | 2-Ply | 300 | 425 lbs | 10/\#5 Tubes |
| 042120 | 2-Ply | 405' | 425 lbs | 10/\#5 Tubes |
| 042107 | 3-Ply | 88' | 600 lbs | 10/\#5 Tubes |
| 042125 | 1-Ply | 300 | 240 lbs | 10/\#10 Tubes |
| 042110 | 1-Ply | 300 | 240 lbs | 10/\#10 Tubes |
| 042112 | 2-Ply | 88' | 425 lbs | 10/\#10 Tubes |
| 042128 | 2-Ply | 176 | 425 lbs | 10/\#10 Tubes |
| 042114 | 3-Ply | 88' | 600 lbs | 10/\#10 Tubes |
| 042130 | 3-Ply | 88' | 600 lbs | 10/\#10 Tubes |
| 042116 | 4-Ply | $72^{\prime}$ | 850 lbs | 10/\#10 Tubes |
| 042117 | 5-Ply | $60^{\prime}$ | 1,095 lbs | 10/\#10 Tubes |
| 042118 | 6-Ply | $48^{\prime}$ | 1,400 lbs | 10/\#10 Tubes |
| 042035 | 1-Ply | $360{ }^{\prime}$ | 200 lbs | 2/\#20 Tubes |
| 042040 | 2-Ply | 176' | 360 lbs | 2/\#20 Tubes |
| 042050 | 1-Ply | $360{ }^{\prime}$ | 200 lbs | \#50 S/E Tubes |
| 042055 | 2-Ply | 176' | 360 lbs | \#50 S/E Tubes |
| 042060 | 3-Ply | 88' | 600 lbs | \#50 S/E Tubes |
| 042090 | 2-Ply | $146{ }^{\prime}$ | 425 lbs | \#50 S/E Tubes |
| 042065 | 1-Ply | $360{ }^{\prime}$ | 200 lbs | \#50 S/E Reels |
| 042070 | 2-Ply | 176' | 360 lbs | \#50 S/E Reels |
| 042200 | 3-Ply | 88' | 240 lbs | \#50 S/E Reels |
| 042202 | 3-Ply | 88' | 700 lbs | \#50 S/E Reels |
| 042218 | 1-Ply | 300' | 240 lbs | \#100 M/E Coils |
| 042225 | 2-Ply | 194' | 310 lbs | \#100 M/E Coils |
| 042220 | 2-Ply | $146{ }^{\prime}$ | 425 lbs | \#100 M/E Coils |
| 042265 | 2-Ply | $240 '$ | 600 lbs | \#100 M/E Coils |



| Sisal Bull Rope |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Ply | FtLb | Put-Up |
| 044030 | $1-\mathrm{Ply}$ | 225 | \#50 M/E Coil |


| Sisal Binder Twine |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Ply | Ft/Lb | Put-Up |
| 040005 | 1-Ply | $500^{\prime}$ | 10-\#5 Tubes/Bale |
| 040010 | 1-Ply | $500^{\prime}$ | 10-\#5 Balls/Bale |
| 040020 | 1-Ply | $500^{\prime}$ | 10-\#4 Tubes/Bale UPC |


| Tarred Sisal Tree Rope |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Ply | Ft/Lb | Put-Up |
| 044020 | $4-$ Ply | $100^{\prime}$ | $10-\# 5$ Balls/Bale |


| Sisal Copper Treated Twine |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Ply | FtLL | Put-Up |  |
| 044003 | 1-Ply | $185^{\prime}$ | $10-\# 5$ Balls/Bale |  |
| 044005 | 1-Ply | $300^{\prime}$ | $10-\# 5$ Balls/Bale |  |
| 004010 | 2-Ply | $146^{\prime}$ | $10-\# 5$ Balls/Bale |  |
| 004015 | $3-$ Ply | $88^{\prime}$ | $10-\# 5$ Balls/Bale |  |

## (11C)



| Cotton Twine |  |  |  |
| :---: | :---: | :---: | :---: |
| Ply | $\begin{gathered} \text { 4's Yarn } \\ 25 \text { / \#2 Cones } \end{gathered}$ | $\begin{gathered} \text { 8's Yarn } \\ 20 \text { / \#2-1/2 Cones } \end{gathered}$ | $\begin{gathered} \text { 8's Yarn } \\ 12 \text { / \#5 Cones } \end{gathered}$ |
| 3-ply | 006006 | 004060 |  |
| 4-ply | 006011 | 004062 |  |
| 6-ply | 006016 | 004064 | 004204 |
| 8-ply | 006021 | 004066 | 004207 |
| 10-ply | 006026 | 004068 | 004212 |
| 12-ply | 006031 | 004070 | 004217 |
| 16-ply | 006036 | 004072 | 004222 |
| 20-ply | 006038 | 004074 | 004224 |
| 24-ply | 006041 | 004076 | 004226 |
| 36-ply | 006043 |  |  |


| Sewing Twine Cotton/Poly Blend - 12's Yarn |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Ply | Cone Size | Cones/Ctn |
| 015015 | 4-Ply | 8 oz | 32 |
| 015020 | 5-Ply | 8 oz | 32 |
| 015035 | 4-Ply | $2-1 / 2 \mathrm{lbs}$ | 18 |
| 015040 | 5-Ply | $2-1 / 2 \mathrm{lbs}$ | 18 |
| 015061 | 4-Ply | 20 lbs | 4 |
| 015066 | 5-Ply | 20 lbs | 4 |
| 015102 | 5-Ply | 20 lbs | 4 |


| $\mathbf{1 0 0 \%}$ Polyester - 13's Yarn |  |  |  |
| :---: | :---: | :---: | :---: |
| Item No | Ply | Cone Size | Cones/Ctn |
| 015085 | $4-P l y$ | 8 oz | 32 |
| 015090 | $4-\mathrm{Ply}$ | $2-1 / 2 \mathrm{lbs}$ | 18 |
| 015101 | $4-\mathrm{Ply}$ | 20 lbs | 4 |
| 015201 | $4-\mathrm{Ply}$ | 20 lbs | 4 |


| Sacking Twine: Polished Cotton - 4's Yarn |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Ply | Ft/Lb | Approx Tensile | Put-Up |
| 016005 | $\# 18$ | 6-Ply | 1,575 | 29 lbs | \#50 M/E Reel |
| 016015 | $\# 24$ | 8-Ply | $1,190^{\prime}$ | 40 lbs | \#50 M/E Reel |


| Sacking Twine: Unpolished |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No | Size | Ply | Ft/Lb | Approx Tensile | Put-Up |
| 017015 | $\# 18$ | 6 Ply | 1,650 | 29 lbs | \#50 M/E Reel |
| 017021 | $\# 24$ | 8 Ply | $1,200^{\prime}$ | 40 lbs | \#50 M/E Tube |
| 017025 | $\# 48$ | 12 Ply | 800 | 54 lbs | \#50 M/E Reel |



|  | Twine Knives |  |
| :---: | :---: | :---: |
| Item No | Size | Qty/Box |
| 068050 | $\# 6$ | 12 |
| 068055 | $\# 7$ | 12 |
| 068060 | $\# 8$ | 12 |
| 068065 | $\# 9$ | 12 |
| 068070 | $\# 10$ | 12 |
| 068075 | $\# 11$ | 12 |
| 068080 | $\# 12$ | 12 |
| 068085 | $\# 13$ | 12 |
| 068090 | $\# 14$ | 12 |
| 068095 | $\# 15$ | 12 |
| This item is sold by the dozen only. |  |  |

## (WV) Packaged Products

| Polypropylene Mini-Coils |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Diameter | Length | Coils/Ctn | Wt/Ctn |
| 150005 | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | 12 | 7 lbs |
| 150010 | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 15 lbs |
| 150015 | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | 12 | 17 lbs |
| 150020 | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | 34 lbs |
| 150025 | $1 / 2^{\prime \prime}$ | $50^{\prime}$ | 12 | 28 lbs |
| 150030 | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 12 | 56 lbs |



## Calfornia Truck Rope Mini-Coils

| Item No | Diameter | Length | Coils/Ctn | Wt/Ctn |
| :---: | :---: | ---: | :---: | :---: |
| 152015 | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | 12 | 17 lbs |
| 152020 | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | 34 lbs |
| 152025 | $1 / 2^{\prime \prime}$ | $50^{\prime}$ | 12 | 28 lbs |
| 152030 | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 12 | 54 lbs |


|  | Nylon Mini-Coils |  |  |  |
| :---: | :---: | ---: | :---: | ---: |
| Item No | Diameter | Length | Coils/Ctn | Wt/Ctn |
| 151005 | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | 12 | 9 lbs |
| 151010 | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 18 lbs |
| 151015 | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | 12 | 21 lbs |
| 151020 | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | 42 lbs |
| 151025 | $1 / 2^{\prime \prime}$ | 50 | 12 | 39 lbs |
| 151030 | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 6 | 39 lbs |


| Pure Manila Mini-Coils |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item No | Diameter | Length | Coils/Ctn | Wt/Ctn |
| 156005 | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | 24 | 24 lbs |
| 156010 | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 12 | 24 lbs |
| 156012 | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 24 | 48 lbs |
| 156015 | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | 12 | 24 lbs |
| 156023 | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 12 | 48 lbs |
| 156025 | $1 / 2^{\prime \prime}$ | $50^{\prime}$ | 6 | 23 lbs |
| 156035 | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 6 | 45 lbs |


| Sisal Mini-Coils |  |  |  |  |
| :---: | :---: | ---: | :---: | :---: |
| Item No | Diameter | Length | Coils/Ctn | Wt/Ctn |
| 157010 | $1 / 4^{\prime \prime}$ | $50^{\prime}$ | 48 | 40 lbs |
| 157020 | $1 / 4^{\prime \prime}$ | $100^{\prime}$ | 48 | 80 lbs |
| 157030 | $3 / 8^{\prime \prime}$ | $50^{\prime}$ | 48 | 84 lbs |
| 157035 | $3 / 8^{\prime \prime}$ | $100^{\prime}$ | 24 | 84 lbs |
| 157040 | $1 / 2^{\prime \prime}$ | $50^{\prime}$ | 24 | 84 lbs |
| 157045 | $1 / 2^{\prime \prime}$ | $100^{\prime}$ | 12 | 84 lbs |



## (WV) Packaged Products

## Jute

Jute is used for decorating, bag closure, packaging and used widely in the nursery industry. Natural color jute is also a good substitute for hemp.

| Item No | Color | Ply | Size | Ft/Lbs | Ctn Pack |
| :---: | :--- | :--- | :--- | :---: | :---: |
| 048045 | Natural | 4-Ply | 72 lbs | $140^{\prime}$ | 6-\#10 Tubes |
| 048160 | Natural | 3-Ply | 28 lbs | $510^{\prime}$ | 6-\#10 Tubes |
| 048165 | Natural | 4-Ply | 28 lbs | $375^{\prime}$ | 6-\#10 Tubes |
| 048174 | Natural | 2-Ply | 28 lbs | $700^{\prime}$ | \#50 M/E Reel |
| 048180 | Natural | 3-Ply | 28 lbs | $510^{\prime}$ | \#50 M/E Reel |
| 048181 | Natural | 4-Ply | 28 lbs | $375^{\prime}$ | \#50 M/E Reel |
| 048190 | Natural | 2-Ply | 14 lbs | $1,500^{\prime}$ | 6-\#10 Tubes |
| 048195 | Natural | 2-Ply | 14 lbs | $1,500^{\prime}$ | \#50 M/E Reel |

## Jute Tubes

Natural fiber, biodegradable twine, available in easy to handle light weight tubes.

| Item No | Color | Ply | Ft/Tube | Put-Up | Approx <br> Wt/Doz |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 045150 | Natural | 3-Ply | $228^{\prime}$ | $1 / 2$ \# Tubes | 6 lbs |
| 045155 | Green | 3-Ply | $228^{\prime}$ | $1 / 2$ \# Tubes | 6 lbs |

Sold by the dozen.

## Sisal Balls

General purpose natural fiber twine, available in natural or green.

| Item No | Color | Ply | Ft/Ball | Put-Up | Approx <br> Wt/Doz |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 045115 | Natural | 1-Ply | 450 | $1 / 2$ \# Balls | 6 lbs |
| 045120 | Green | 1-Ply | $450^{\prime}$ | $1 / 2$ \# Balls | 6 lbs |

Sold by the dozen.

## Twisted Cotton Gable Cord - Poly Wrapped Balls

A natural biodegradable twine used for seine twine, stagging twine, trot line, chalk and mason line.

| Item No | Size | Ply | Ft/Ball | Put-Up | Approx Wt/Doz |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 137002 | \#24 | 8-Ply | 280' | 1/2 \# Balls | 6 lbs |
| 137009 | \#36 | 10-Ply | 220' | 1/2 \# Balls | 6 lbs |
| 137010 | \#48 | 12-Ply | 180' | 1/2 \# Balls | 6 lbs |
| Sold by the dozen. |  |  |  |  |  |

## Polished Gotton - Poly Wrapped Balls

Strong, durable, easy on the hands. Used for package bundling, wrapping and heavy duty tying.

| Item No | Size | Ply | Ft/Ball | Put-Up | Approx <br> Wt/Doz |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 010060 | \#24 | 8-Ply | $595^{\prime}$ | $1 / 2$ \# Balls | 6 lbs |
| 010070 | $\# 36$ | 10-Ply | $475^{\prime}$ | $1 / 2$ \# Balls | 6 lbs |
| 010080 | $\# 48$ | $12-$ Ply | $395^{\prime}$ | $1 / 2$ \# Balls | 6 lbs |
| 010090 | $\# 60$ | $16-$ Ply | $305^{\prime}$ | $1 / 2$ \# Balls | 6 lbs |

## Rope Measuring Meter

Accurately measures synthetic and natural fiber cordage from 5/32" to 3/4" diameter and has a digital readout.

| Item No | Description |
| :---: | :--- |
| 068410 | Rope Measuring Meter. |

## Desk Model Rope Gutter

Cuts and fuses all synthetic ropes. Positive On/Off switch, metal housing, 110 Volt AC, and will cut rope up to $2-3 / 8^{\prime \prime}$ in diameter.

| Item No | Description |
| :--- | :--- |
| 068007 | Electric Desk Model, heats in 30 seconds |
| 068011 | Replacement blade for desk model |

## Hand Held Rope Gutting Gun

Heats quickly and is portable for lightweight cutting. This has 150 WATTs and will cut rope up to 1-1/2" in diameter.

| Item No | Description |
| :--- | :--- |
| 068005 | Heats quickly, one blade included. |
| 068010 | Replacement blade for hand held model. |

## Plastic Splicing Fids - for Hollow Braid Poly Rope

Double braid splicing fids and pushers are available upon request.

| Item No | Description | Qty/Card |
| :---: | :---: | :---: |
| 068155 | $1 / 4^{\prime \prime}$ | 10 |
| 068165 | $3 / 8^{\prime \prime}$ | 10 |
| 068170 | $1 / 2^{\prime \prime}$ | 10 |



Specifications

| Nominal Size (1) |  |  | Polypropylene 3 Strand \& 8 Braid |  |  | Poly/Dac ${ }^{\text {™ }}$ <br> 3 Strand \& 8 Braid |  |  | Nylon <br> 3 Strand \& 8 Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Approx Dia | $\begin{aligned} & \text { Size \# } \\ & \text { (Circ) } \end{aligned}$ | Approx mm | Approx Lbs/100' | Lbs | Range Ratio | Approx Lbs/100' | Lbs | Range Ratio | Approx Lbs/100 | Lbs | Range Ratio |
| 3/16" | 5/8" | 5 | 0.65 | 650 | 5-12 to 1 |  |  |  | 0.89 | 880 | 5-12 to 1 |
| 1/4" | 3/4" | 6 | 1.15 | 1,125 | 5-12 to 1 | 1.6 | 1,200 | 5-12 to 1 | 1.57 | 1,485 | 5-12 to 1 |
| 5/16" | $1{ }^{\prime \prime}$ | 8 | 1.80 | 1,710 | 5-12 to 1 | 2.5 | 1,870 | 5-12 to 1 | 2.45 | 2,295 | 5-12 to 1 |
| 3/8" | 1-1/8" | 10 | 2.60 | 2,430 | 5-12 to 1 | 3.6 | 2,700 | $5-12$ to 1 | 3.55 | 3,240 | 5-12 to 1 |
| 7/16" | 1-1/4" | 11 | 3.50 | 3,150 | 5-12 to 1 | 4.8 | 3,500 | 5-12 to 1 | 4.80 | 4,320 | $5-12$ to 1 |
| 1/2" | 1-1/2" | 12 | 4.60 | 3,780 | 5-12 to 1 | 6.2 | 4,400 | $5-12$ to 1 | 6.30 | 5,670 | $5-12$ to 1 |
| 9/16" | 1-3/4" | 14 | 5.90 | 4,590 | 5-12 to 1 | 7.9 | 5,200 | 5-12 to 1 | 8.00 | 7,200 | $5-12$ to 1 |
| 5/8" | $2 "$ | 17 | 7.20 | 5,580 | 5-12 to 1 | 9.5 | 6,100 | $5-12$ to 1 | 9.90 | 8,910 | $5-12$ to 1 |
| 3/4" | 2-1/4" | 18 | 10.4 | 7,650 | 5-12 to 1 | 13.5 | 8,400 | 5-12 to 1 | 14.30 | 12,780 | 5-12 to 1 |
| 13/16" | 2-1/2" | 20 | 12.70 | 8,900 | 5-12 to 1 |  |  |  |  |  |  |
| 7/8" | 2-3/4" | 22 | 14.2 | 10,350 | 5-12 to 1 | 18 | 11,125 | 5-12 to 1 | 19.50 | 17,280 | 5-12 to 1 |
| $1{ }^{\prime \prime}$ | $3{ }^{\prime \prime}$ | 24 | 18.0 | 12,825 | 5-12 to 1 | 21.8 | 13,175 | $5-12$ to 1 | 25.30 | 22,230 | $5-12$ to 1 |
| 1-1/8" | 3-1/2" | 28 | 22.8 | 16,000 | 5-12 to 1 | 27.1 | 16,325 | 5-12 to 1 | 32.20 | 28,260 | 5-12 to 1 |
| 1-1/4" | 3-3/4" | 30 | 27.6 | 19,350 | 5-12 to 1 | 33.4 | 19,900 | $5-12$ to 1 | 39.70 | 34,830 | $5-12$ to 1 |
| 1-5/16" | $4 "$ | 32 | 30.4 | 21,150 | 5-12 to 1 | 36.5 | 21,950 | 5-12 to 1 | 43.70 | 38,250 | $5-12$ to 1 |
| 1-1/2" | 4-1/2" | 36 | 39.4 | 27,350 | 5-12 to 1 | 47 | 28,250 | $5-12$ to 1 | 57.00 | 48,600 | $5-12$ to 1 |
| 1-5/8" | $5{ }^{\prime \prime}$ | 40 | 46.0 | 31,950 | 5-12 to 1 | 55 | 32,950 | 5-12 to 1 | 67.30 | 57,375 | $5-12$ to 1 |
| 1-3/4" | 5-1/2" | 44 | 53.0 | 36,900 | 5-12 to 1 | 62 | 36,850 | $5-12$ to 1 | 78.00 | 66,150 | $5-12$ to 1 |
| $2{ }^{\prime \prime}$ | $6 "$ | 48 | 69.0 | 46,800 | 5-12 to 1 | 81 | 48,050 | 5-12 to 1 | 100.00 | 84,600 | 5-12 to 1 |
| 2-1/8" | 6-1/2" | 52 | 78.0 | 52,650 | 5-12 to 1 | 91 | 53,950 | $5-12$ to 1 | 113.00 | 95,400 | $5-12$ to 1 |
| 2-1/4" | $7{ }^{\prime \prime}$ | 56 | 88.0 | 59,400 | 5-12 to 1 | 101 | 59,950 | 5-12 to 1 | 127.00 | 107,100 | 5-12 to 1 |
| 2-1/2" | 7-1/2" | 60 | 107 | 72,000 | 5-12 to 1 | 124 | 73,550 | 5-12 to 1 | 157.00 | 131,400 | $5-12$ to 1 |
| 2-5/8" | $8{ }^{\prime \prime}$ | 64 | 120 | 80,500 | 5-12 to 1 | 136 | 80,650 | 5-12 to 1 | 173.00 | 144,000 | 5-12 to 1 |
| 2-3/4" | 8-1/2" | 68 | 141 | 94,500 | 5-12 to 1 | 161 | 95,400 | $5-12$ to 1 | 208.00 | 171,000 | $5-12$ to 1 |
| $3{ }^{\prime \prime}$ | $9{ }^{\prime \prime}$ | 72 | 153 | 102,600 | 5-12 to 1 | 174 | 102,900 | 5-12 to 1 | 226.00 | 185,400 | $5-12$ to 1 |
| 3-1/4" | 10" | 80 | 186 | 121,500 | 5-12 to 1 | 212 | 122,800 | $5-12$ to 1 | 275.00 | 224,100 | $5-12$ to 1 |
| 3-1/2" | $11^{\prime \prime}$ | 88 | 223 | 144,000 | 5-12 to 1 | 250 | 144,800 | 5-12 to 1 | 329.00 | 267,300 | 5-12 to 1 |
| 4" | 12" | 96 | 272 | 171,900 | 5-12 to 1 | 300 | 171,000 | $5-12$ to 1 | 400.00 | 324,000 | $5-12$ to 1 |
| 4-1/4" | 13 " | 104 | 315 | 198,000 | 5-12 to 1 | 345 | 195,800 | 5-12 to 1 | 450.00 | 369,000 | $5-12$ to 1 |
| 4-1/2" | $14{ }^{\prime \prime}$ | 112 | 360 | 223,200 | 5-12 to 1 | 395 | 224,800 | $5-12$ to 1 | 525.00 | 418,500 | $5-12$ to 1 |
| $5{ }^{\prime \prime}$ | $15 "$ | 120 | 420 | 256,500 | 5-12 to 1 | 455 | 254,700 | 5-12 to 1 | 610.00 | 480,600 | 5-12 to 1 |
| 5-5/16" | 16 " | 128 | 474 | 287,100 | 5-12 to 1 | 506 | 282,600 | $5-12$ to 1 | 685.00 | 532,800 | $5-12$ to 1 |
| 5-5/8" | 17" | 136 | 531 | 319,500 | 5-12 to 1 | 562 | 312,300 | 5-12 to 1 | 767.00 | 589,500 | 5-12 to 1 |
| $6{ }^{\prime \prime}$ | 18" | 144 | 603 | 358,200 | 5-12 to 1 | 635 | 351,000 | $5-12$ to 1 | 870.00 | 660,600 | 5-12 to 1 |

(1) Diameter is approximate and is actually determined by linear density. (Pounds per 100')
(2) Linear Density is considered average weight per 100'. Tolerances: $3 / 16^{\prime \prime}-5 / 16$ " diameters inclusive +plus or -minus $10 \%$; $3 / 8$ " $-9 / 16$ " inclusive +plus or -minus $8 \%$; and $5 / 8^{\prime \prime}$ and up +plus or -minus $5 \%$.
(3) New rope Minimum Breaking Strength is based on data from a number of manufacturers and represents a value of 2 standard deviations below the mean, established by regression analysis.
(4) For critical applications where life or limb of Dynamic Loading is present, use the higher ratio division.

Example: 10,000 pounds $\div \mathbf{1 2} \mathbf{= 8 3 3}$ pounds working load ratio.

Specifications

| Nominal Size (1) |  |  | Polyester 3 Strand \& 8 Braid |  |  | $\begin{gathered} \hline \text { Manila } \\ \text { 3 Strand } \\ \hline \end{gathered}$ |  |  | CWC Steel Pro"' Hi Stretch <br> 3 Strand \& 8 Braid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) | Linear Density (2) | Breaking Force (3) | Working Load Ratio (4) |
| Approx Dia | $\begin{aligned} & \text { Size \# } \\ & \text { (Circ) } \end{aligned}$ | $\begin{gathered} \text { Approx } \\ \mathrm{mm} \end{gathered}$ | Approx Lbs/100 | Lbs | Range Ratio | Approx Lbs/100 | Lbs | Range Ratio | Approx <br> Lbs/100 | Lbs | Range Ratio |
| 3/16" | 5/8" | 5 | 1.10 | 765 | 5-12 to 1 | 1.37 | 405 | 5-12 to 1 |  |  |  |
| $1 / 4{ }^{\prime \prime}$ | 3/4" | 6 | 1.95 | 1,315 | 5-12 to 1 | 1.82 | 540 | $5-12$ to 1 | 1.17 | 1,673 | 5-12 to 1 |
| 5/16" | $1{ }^{\prime \prime}$ | 8 | 3.05 | 2,050 | 5-12 to 1 | 2.64 | 900 | 5-12 to 1 | 2.54 | 2,795 | 5-12 to 1 |
| 3/8" | 1-1/8" | 10 | 4.35 | 2,900 | 5-12 to 1 | 3.79 | 1,215 | 5-12 to 1 | 2.68 | 3,686 | 5-12 to 1 |
| 7/16" | 1-1/4" | 11 | 5.9 | 3,915 | 5-12 to 1 | 4.87 | 1,575 | 5-12 to 1 | 3.35 | 4,413 | 5-12 to 1 |
| 1/2" | 1-1/2" | 12 | 7.7 | 5,085 | 5-12 to 1 | 6.96 | 2,385 | 5-12 to 1 | 4.69 | 5,640 | $5-12$ to 1 |
| 9/16" | 1-3/4" | 14 | 9.8 | 6,435 | 5-12 to 1 | 9.63 | 3,105 | 5-12 to 1 | 6.70 | 7,629 | 5-12 to 1 |
| 5/8" | 2 " | 17 | 12.0 | 7,825 | 5-12 to 1 | 12.7 | 3,960 | 5-12 to 1 | 8.04 | 9,119 | $5-12$ to 1 |
| 3/4" | 2-1/4" | 18 | 17.2 | 11,200 | 5-12 to 1 | 15.9 | 4,860 | 5-12 to 1 | 10.72 | 11,541 | $5-12$ to 1 |
| 13/16" | 2-1/2" | 20 |  |  |  | 18.6 | 5,850 | 5-12 to 1 |  |  |  |
| 7/8" | 2-3/4" | 22 | 23.4 | 15,225 | 5-12 to 1 | 21.4 | 6,930 | 5-12 to 1 | 16.08 | 17,153 | 5-12 to 1 |
| $1{ }^{\prime \prime}$ | $3 "$ | 24 | 30.4 | 19,775 | 5-12 to 1 | 25.7 | 8,100 | $5-12$ to 1 | 20.09 | 20,960 | $5-12$ to 1 |
| 1-1/8" | 3-1/2" | 28 | 38.5 | 24,800 | 5-12 to 1 | 34.3 | 10,800 | 5-12 to 1 | 25.45 | 26,149 | 5-12 to 1 |
| 1-1/4" | 3-3/4" | 30 | 46.5 | 29,800 | 5-12 to 1 | 39.7 | 12,150 | 5-12 to 1 | 30.81 | 31,623 | $5-12$ to 1 |
| 1-5/16" | $4 "$ | 32 | 51 | 32,500 | 5-12 to 1 | 45.6 | 13,500 | 5-12 to 1 |  |  |  |
| 1-1/2" | 4-1/2" | 36 | 67 | 42,200 | 5-12 to 1 | 57.0 | 16,650 | 5-12 to 1 | 34.83 | 35,395 | 5-12 to 1 |
| 1-5/8" | $5{ }^{\prime \prime}$ | 40 | 78 | 49,250 | 5-12 to 1 | 71.1 | 20,250 | 5-12 to 1 | 42.87 | 43,589 | 5-12 to 1 |
| 1-3/4" | 5-1/2" | 44 | 91 | 57,000 | 5-12 to 1 | 85.0 | 23,850 | 5-12 to 1 | 54.93 | 55,981 | $5-12$ to 1 |
| $2{ }^{\prime \prime}$ | $6 "$ | 48 | 117 | 72,000 | 5-12 to 1 | 102 | 27,900 | 5-12 to 1 | 61.35 | 73,234 | 5-12 to 1 |
| 2-1/8" | 6-1/2" | 52 | 133 | 81,000 | 5-12 to 1 | 120 | 32,400 | 5-12 to 1 | 72.60 | 86,268 | 5-12 to 1 |
| 2-1/4" | $7{ }^{7}$ | 56 | 149 | 90,500 | 5-12 to 1 | 139 | 36,900 | 5-12 to 1 | 85.14 | 101,142 | 5-12 to 1 |
| 2-1/2" | 7-1/2" | 60 | 184 | 110,000 | 5-12 to 1 | 164 | 42,300 | 5-12 to 1 | 100.16 | 118,820 | $5-12$ to 1 |
| 2-5/8" | $8{ }^{\prime \prime}$ | 64 | 203 | 121,000 | 5-12 to 1 | 182 | 46,800 | 5-12 to 1 | 113.93 | 134,516 | 5-12 to 1 |
| 2-3/4" | 8-1/2" | 68 | 243 | 144,000 | 5-12 to 1 | 215 | 54,900 | $5-12$ to 1 | 130.21 | 153,591 | $5-12$ to 1 |
| $3 "$ | $9{ }^{\prime \prime}$ | 72 | 264 | 156,000 | 5-12 to 1 | 230 | 57,500 | 5-12 to 1 | 166.52 | 196,529 | 5-12 to 1 |
| 3-1/4" | 10" | 80 | 323 | 188,500 | $5-12$ to 1 | 284 | 69,500 | 5-12 to 1 | 206.58 | 237,502 | $5-12$ to 1 |
| 3-1/2" | 11" | 88 | 387 | 225,000 | 5-12 to 1 | 349 | 81,900 | 5-12 to 1 | 246.65 | 280,313 | $5-12$ to 1 |
| $4{ }^{\prime \prime}$ | 12" | 96 | 470 | 270,000 | 5-12 to 1 | 414 | 94,500 | 5-12 to 1 | 291.72 | 324,476 | $5-12$ to 1 |
| 4-1/4" | 13 " | 104 | 547 | 310,000 | 5-12 to 1 |  |  |  |  |  |  |
| 4-1/2" | $14^{\prime \prime}$ | 112 | 630 | 355,000 | 5-12 to 1 |  |  |  |  |  |  |
| $5{ }^{\prime \prime}$ | $15{ }^{\prime \prime}$ | 120 | 732 | 410,000 | 5-12 to 1 |  |  |  |  |  |  |
| 5-5/16" | 16" | 128 | 825 | 459,000 | 5-12 to 1 |  |  |  |  |  |  |
| 5-5/8" | $17{ }^{\prime \prime}$ | 136 | 925 | 508,500 | 5-12 to 1 |  |  |  |  |  |  |
| $6{ }^{\prime \prime}$ | 18" | 144 | 1,050 | 567,000 | 5-12 to 1 |  |  |  |  |  |  |

(1) Diameter is approximate and is actually determined by linear density. (Pounds per 100')
(2) Linear Density is considered average weight per 100'. Tolerances: $3 / 16^{\prime \prime}-5 / 16$ " diameters inclusive +plus or -minus $10 \%$; $3 / 8^{\prime \prime}-9 / 16^{\prime \prime}$ inclusive +plus or -minus $8 \%$; and $5 / 8^{\prime \prime}$ and up +plus or -minus $5 \%$.
(3) New rope Minimum Breaking Strength is based on data from a number of manufacturers and represents a value of 2 standard deviations below the mean, established by regression analysis.
(4) For critical applications where life or limb of Dynamic Loading is present, use the higher ratio division.

Example: 10,000 pounds $\div 12=\mathbf{8 3 3}$ pounds working load ratio.

Specifications

| Nominal Size (1) |  |  | CWC Blue Steel ${ }^{\text {ºm }}$Super Strong Poly 3 Std \& 8 Bd |  |  | CWC Ice Blue ${ }^{\text {tw }}$ ComboSuper Strong Blended 3 Std \& 8 Bd |  |  | $\begin{aligned} & \text { Combo Plus }{ }^{\text {Tm }}-3 \text { Std \& **8 Bd } \\ & \text { Plus- } 3^{\text {m" }}-3 \text { Std \& } \& 8 \text { Bd } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Linear Density (2) | Min Breaking Force (3) | Working Load Ratio (4) | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) |
| Approx Dia | $\begin{aligned} & \text { Size \# } \\ & \text { (Circ) } \end{aligned}$ | Approx mm | Approx Lbs/100' | Lbs | Range Ratio | Approx Lbs/100' | Lbs | Range Ratio | Approx Lbs/100 | Lbs | Range Ratio |
| 3/16" | 5/8" | 5 | . 67 | 950 | 5-12 to 1 |  |  |  |  |  |  |
| 1/4" | 3/4" | 6 | 1.17 | 1,600 | 5-12 to 1 |  |  |  | 1.6 | 1,375 | 5-12 to 1 |
| 5/16" | $1{ }^{\prime \prime}$ | 8 | 2 | 3,100 | 5-12 to 1 |  |  |  | 2.5 | 2,160 | 5-12 to 1 |
| 3/8" | 1-1/8" | 10 | 2.5 | 3,800 | 5-12 to 1 | 3.3 | 4,040 | 5-12 to 1 | 4.2 | 3,240 | 5-12 to 1 |
| 7/16" | 1-1/4" | 11 | 3 | 4,700 | 5-12 to 1 | 4.5 | 5,090 | 5-12 to 1 | 5.5 | 4,025 | 5-12 to 1 |
| 1/2" | 1-1/2" | 12 | 4.5 | 6,600 | 5-12 to 1 | 5.8 | 6,240 | 5-12 to 1 | 6.6 | 5,075 | 5-12 to 1 |
| 9/16" | 1-3/4" | 14 | 6 | 8,900 | 5-12 to 1 | 7.4 | 7,830 | 5-12 to 1 | 8.0 | 6,000 | 5-12 to 1 |
| 5/8" | 2 " | 17 | 7.7 | 11,000 | 5-12 to 1 | 9.5 | 9,800 | $5-12$ to 1 | 9.6 | 7,000 | 5-12 to 1 |
| 3/4" | 2-1/4" | 18 | 9.83 | 13,900 | 5-12 to 1 | 12.7 | 12,700 | 5-12 to 1 | 13.5 | 9,600 | 5-12 to 1 |
| 7/8" | 2-3/4" | 22 | 14.7 | 20,100 | 5-12 to 1 | 18 | 17,470 | 5-12 to 1 | 18 | 12,800 | 5-12 to 1 |
| $1{ }^{\prime \prime}$ | $3 "$ | 24 | 17.3 | 23,100 | 5-12 to 1 | 22 | 21,300 | 5-12 to 1 | 21.8 | 15,100 | 5-12 to 1 |
| 1-1/8" | 3-1/2" | 28 | 23.7 | 30,000 | 5-12 to 1 | 28.8 | 28,000 | $5-12$ to 1 | 27.1 | 18,800 | 5-12 to 1 |
| 1-1/4" | 3-3/4" | 30 | 26.7 | 32,900 | 5-12 to 1 | 33.3 | 34,200 | 5-12 to 1 | 33.4 | 22,900 | 5-12 to 1 |
| 1-1/2" | 4-1/2" | 36 | 39 | 46,100 | 5-12 to 1 | 50.5 | 47,500 | 5-12 to 1 | 47 | 32,500 | 5-12 to 1 |
| 1-5/8" | $5{ }^{\prime \prime}$ | 40 | 48 | 55,600 | 5-12 to 1 | 59.0 | 60,420 |  | 55 | 37,900 | 5-12 to 1 |
| 1-3/4" | 5-1/2" | 44 | 58.7 | 66,500 | 5-12 to 1 | 70.5 | 66,300 | 5-12 to 1 | 62 | 42,400 | 5-12 to 1 |
| 2 " | $6{ }^{\prime \prime}$ | 48 | 75.2 | 83,500 | 5-12 to 1 | 88.7 | 82,900 | 5-12 to 1 | 81 | 55,300 | 5-12 to 1 |
| 2-1/8" | 6-1/2" | 52 | 84.3 | 90,725 | 5-12 to 1 | 100.9 | 94,240 | 5-12 to 1 | 91 | 62,000 | 5-12 to 1 |
| 2-1/4" | $7{ }^{7}$ | 56 | 101.5 | 107,100 | 5-12 to 1 | 120.3 | 112,500 | 5-12 to 1 | 101 | 68,900 | 5-12 to 1 |
| 2-1/2" | 7-1/2" | 60 | 115.8 | 122,300 | 5-12 to 1 | 134.7 | 126,000 | $5-12$ to 1 | 124 | 84,600 | 5-12 to 1 |
| 2-5/8" | $8{ }^{\prime \prime}$ | 64 | 130.9 | 137,750 | 5-12 to 1 | 151.7 | 157,000 | 5-12 to 1 |  |  | 5-12 to 1 |
| 2-3/4" | 8-1/2" | 68 | 155.7 | 162,165 | 5-12 to 1 | 178.6 | 175,940 | 5-12 to 1 |  |  | 5-12 to 1 |
| $3{ }^{\prime \prime}$ | $9{ }^{\prime \prime}$ | 72 | 169 | 176,000 | 5-12 to 1 | 190.8 | 178,400 | 5-12 to 1 |  |  | 5-12 to 1 |
| 3-1/4" | 10 | 80 | 198 | 226,700 | 5-12 to 1 | 234.6 | 238,830 | 5-12 to 1 |  |  | 5-12 to 1 |
| 3-1/2" | 11" | 88 | 233.5 | 241,680 | 5-12 to 1 | 282.4 | 289,085 | 5-12 to 1 |  |  | 5-12 to 1 |
| $4 "$ | 12" | 96 | 283 | 319,800 | 5-12 to 1 | 337.7 | 341,430 | 5-12 to 1 |  |  | 5-12 to 1 |
| 4-1/4" | 13 " | 104 |  |  |  |  |  |  |  |  | 5-12 to 1 |
| $5{ }^{\prime \prime}$ | $15 "$ | 120 |  |  | 5-12 to 1 |  |  |  |  |  | 5-12 to 1 |

(1) Diameter is approximate and is actually determined by linear density. (Pounds per 100')
(2) Linear Density is considered average weight per 100 . Tolerances: $3 / 16^{\prime \prime}-5 / 16^{\prime \prime}$ diameters inclusive +plus or -minus $10 \%$; $3 / 8$ " $-9 / 16^{\prime \prime}$ inclusive +plus or -minus $8 \%$; and $5 / 8^{\prime \prime}$ and up +plus or -minus $5 \%$.
(3) New rope Minimum Breaking Strength is based on data from a number of manufacturers and represents a value of 2 standard deviations below the mean, established by regression analysis.
(4) For critical applications where life or limb of Dynamic Loading is present, use the higher ratio division. Example: 10,000 pounds $\div 12=\mathbf{8 3 3}$ pounds working load ratio.

| Specifications |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Size (1) |  |  | CWC Blue Steel"' Copolymer 12 Strand |  |  | $\begin{aligned} & \text { Spectra® }^{\oplus} \\ & 12 \text { Strand } \end{aligned}$ |  |  | $\begin{aligned} & \text { Plasma }^{\circledR} \\ & 12 \text { Strand } \end{aligned}$ |  |  |
|  |  |  | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) | $\begin{gathered} \text { Linear } \\ \text { Density (2) } \end{gathered}$ | Min Breaking Force (3) | Working Load Ratio (4) | Linear Density (2) | Min Breaking Force (3) | Working Load Ratio (4) |
| Approx Dia | $\begin{aligned} & \text { Size \# } \\ & \text { (Circ) } \end{aligned}$ | Approx mm | Approx Lbs/100 | Lbs | Range Ratio | Approx Lbs/100 | Lbs | Range Ratio | Approx Lbs/100' | Lbs | Range Ratio |
| 1/4" | 3/4" | 6 |  |  |  | 1.6 | 6,000 | 5-12 to 1 | 1.6 | 8,000 | 5-12 to 1 |
| 5/16" | $1{ }^{\prime \prime}$ | 8 |  |  |  | 2.6 | 9,000 | 5-12 to 1 | 2.5 | 11,700 | 5-12 to 1 |
| 3/8" | 1-1/8" | 10 |  |  |  | 3.7 | 13,900 | $5-12$ to 1 | 3.7 | 17,500 | $5-12$ to 1 |
| 7/16" | 1-1/4" | 11 |  |  |  | 4.2 | 14,800 | $5-12$ to 1 | 4.2 | 21,000 | 5-12 to 1 |
| 1/2" | 1-1/2" | 12 | 5.40 | 6,900 | 5-12 to 1 | 6.4 | 22,500 | 5-12 to 1 | 6.4 | 31,300 | 5-12 to 1 |
| 9/16" | 1-3/4" | 14 | 7.35 | 9,400 | 5-12 to 1 | 7.9 | 27,700 | 5-12 to 1 | 7.9 | 37,900 | 5-12 to 1 |
| 5/8" | $2{ }^{\prime \prime}$ | 17 | 9.60 | 12,200 | 5-12 to 1 | 10.6 | 36,600 | 5-12 to 1 | 10.6 | 51,400 | 5-12 to 1 |
| 3/4" | 2-1/2" | 18 | 12.50 | 15.900 | 5-12 to 1 | 13.3 | 43,300 | 5-12 to 1 | 13.3 | 68,500 | 5-12 to 1 |
| 7/8" | 2-3/4" | 22 | 17.00 | 21,200 | 5-12 to 1 | 19.6 | 61,000 | 5-12 to 1 | 19.6 | 92,600 | 5-12 to 1 |
| $1{ }^{\prime \prime}$ | $3{ }^{\prime \prime}$ | 24 | 19.40 | 25,200 | 5-12 to 1 | 23.4 | 72,000 | 5-12 to 1 | 23.4 | 110,000 | 5-12 to 1 |
| 1-1/8" | 3-1/2" | 28 | 26.50 | 33,500 | 5-12 to 1 | 31.9 | 91,800 | 5-12 to 1 | 31.9 | 147,000 | 5-12 to 1 |
| 1-1/4" | 3-3/4" | 30 | 30.30 | 37,000 | 5-12 to 1 | 36.2 | 102,600 | 5-12 to 1 | 36.2 | 165,000 | 5-12 to 1 |
| 1-5/16" | 4" | 32 | 34.30 | 42,800 | 5-12 to 1 | 41.7 | 114,300 | 5-12 to 1 | 41.7 | 196,000 | 5-12 to 1 |
| 1-1/2" | 4-1/2" | 36 | 43.10 | 53,200 | 5-12 to 1 | 51.7 | 141,300 | 5-12 to 1 | 51.7 | 221,000 | 5-12 to 1 |
| 1-5/8" | $5 "$ | 40 | 53.10 | 65,600 | 5-12 to 1 | 65.7 | 167,400 | 5-12 to 1 | 65.7 | 291,000 | 5-12 to 1 |
| 1-3/4" | 5-1/2" | 44 | 65.50 | 78,400 | 5-12 to 1 | 78.4 | 198,000 | 5-12 to 1 | 78.4 | 314,000 | 5-12 to 1 |
| 2 " | $6{ }^{\prime \prime}$ | 48 | 80.20 | 96,000 | 5-12 to 1 | 91.4 | 225,000 | 5-12 to 1 | 91.4 | 355,000 | 5-12 to 1 |
| 2-1/8" | 6-1/2" | 52 | 93.50 | 110,600 | 5-12 to 1 | 109 | 270,000 | 5-12 to 1 | 109 | 428,000 | 5-12 to 1 |
| 2-1/4" | $7{ }^{\prime \prime}$ | 56 | 108.50 | 126,600 | 5-12 to 1 | 122 | 317,700 | 5-12 to 1 | 122 | 481,000 | 5-12 to 1 |
| 2-1/2" | 7-1/2" | 60 | 124.40 | 144,700 | 5-12 to 1 | 148 | 360,000 | 5-12 to 1 | 148 | 530,000 | $5-12$ to 1 |
| 2-5/8" | $8{ }^{\prime \prime}$ | 64 | 141.10 | 162,800 | 5-12 to 1 | 167 | 370,800 | 5-12 to 1 | 167 | 596,000 | 5-12 to 1 |
| 2-3/4" | 8-1/2" | 68 | 156.50 | 181,900 | 5-12 to 1 | 187 | 405,000 | 5-12 to 1 | 187 | 660,000 | 5-12 to 1 |
| $3 "$ | $9{ }^{\prime \prime}$ | 72 | 178.10 | 206,900 | 5-12 to 1 | 214 | 508,500 | 5-12 to 1 | 214 | 780,000 | 5-12 to 1 |
| 3-1/4" | 10" | 80 | 220.00 | 250,530 | 5-12 to 1 | 261 | 616,500 | 5-12 to 1 | 261 | 940,000 | 5-12 to 1 |
| $4{ }^{\prime \prime}$ | 12 | 96 | 314.50 | 353,400 | 5-12 to 1 | 394 | 900,000 | 5-12 to 1 | 394 | 1,520,000 | 5-12 to 1 |

(1) Diameter is approximate and is actually determined by linear density. (Pounds per 100')
(2) Linear Density is considered average weight per 100'. Tolerances: $3 / 16^{\prime \prime}-5 / 16^{\prime \prime}$ diameters inclusive +plus or -minus $10 \%$; $3 / 8^{\prime \prime}-9 / 16^{\prime \prime}$ inclusive +plus or -minus $8 \%$; and $5 / 8$ " and up +plus or -minus $5 \%$.
(3) New rope Minimum Breaking Strength is based on data from a number of manufacturers and represents a value of 2 standard deviations below the mean, established by regression analysis.
(4) For critical applications where life or limb of Dynamic Loading is present, use the higher ratio division.

Example: 10,000 pounds $\div \mathbf{1 2 = 8 3 3}$ pounds working load ratio.

## Specifications

## Diameter \& Size Number Values

Size is determined by linear density; diameter is given as a minimal value, that is, it may vary slightly. If a specific diameter value is specified, linear density and minimum breaking strength values may be different from those given in tables. Size number is given as a reference.

## Working Loads

Minimum breaking strength is based on data from a number of manufacturers and represents a value of 2 standard deviations below the mean, as established by regression analysis. The working load of a rope shall be determined by dividing the minimum breaking strength by the design factor. Design factors range from 5 to 12 for non-critical applications.

Because of the wide range of rope use, rope conditions, exposure to the several factors affecting rope behavior, and the degree of risk to life and property involved, it is not realistic to make standard recommendations as to design factors or working loads. However, to provide guidelines, a range of design factors and working loads are provided for rope in good condition with appropriate splices, in non-critical applications and under normal service conditions. Normal service is generally considered to be used under static or very modest dynamic load conditions.

Design factors at the low end of the suggested range should only be selected with expert knowledge of conditions and professional estimate of risk, based on the critical conditions of use below.

## Gritical Conditions of Use

Design factors at the high end of the range or larger shall be used when:

1) Small ropes are used because they can be more severely damaged by cutting, abrasion \& sunlight.
2) Loads are not accurately known.
3) Operators are poorly trained.
4) Operation/use procedures are not well defined and/or controlled.
5) Inspection is infrequent.
6) Abrasion, cutting, dirt are present.
7) Shock loads or extreme dynamic loadings are likely.
8) High temperatures are present.
9) Chemicals are present.
10) Ropes are kept in service indefinitely.
11) Tensions on the rope are maintained continuously for long periods.
12) Rope can be subject to sharp bends if used over pulleys or surfaces with too small a radius.
13) If knots are used, strength is reduced by up to $50 \%$
14) Death, injury or loss of valuable property may result from failure.

## Dynamic Loading

Whenever a load is picked up, stopped, moved or swung, there is an increased force due to dynamic loading. The more rapidly or suddenly such actions occur, the greater this increase will be. In extreme cases, the force put on the rope may be two, three, or even more times the normal load involved; for instance, when picking up a tow on a slack line or using a rope to stop a falling object. Therefore, in all such applications as towing lines, life lines, safety lines, climbing ropes, etc., design factors must reflect the added risks involved.

Users should be aware that dynamic effects are greater on a lowelongation rope such as manila than on a high-elongation rope such as nylon and greater on a shorter rope than a longer one. The range of design factors given contains provision for very modest dynamic loads. This means that the load must be handled slowly and smoothly to minimize dynamic effects.

## Special Safety Note

A dangerous situation occurs if personnel are in line with a rope under excessive tension. Should the rope fail, it may recoil; with considerable force - especially if the rope is nylon. Death may result. Persons must be warned against standing in line with the rope.

## Special Applications

The design factor ranges are not necessarily intended to apply in those applications where a thorough engineering analysis of all conditions of use has been made by qualified professionals. In such cases, breaking strength, elongation, energy absorption, behavior under long-term or cyclic loading, and other pertinent properties and operating procedures may be evaluated to allow the selection of a design factor best suited to the requirements.

## ©Wo) Rope Usage Guide



NOTE: Because of the wide range of rope use, rope condition, exposure to the several factors affecting rope behavior, and the degree of risk to life and property involved, it is impossible to cover all rope applications in this section. In all cases where risk is involved, or there is a question about the condition of use, consult the manufacturer. This is not intended to apply to rescue rope. Consult the manufacturer for specific applications.

## GHOOSING A ROPE <br> Always consult the manufacturer before using rope when personal safety or possible damage to property is involved.

Make sure the rope is adequate for the job. Do not use too small a rope or the wrong type. Specifications are available from your dealer, distributor, or the manufacturer, which gives the strength and recommended working loads for various sizes and constructions of hard fiber and synthetic rope.

## REMOVING ROPE FROM GOILS \& REELS <br> Remove rope properly from coils or reels to prevent kinking.

If the rope is in a coil, it should always be uncoiled from the inside as directed by the manufacturer. If on a reel, the rope should be removed by pulling it off the top while the reel is free to rotate. This can be accomplished by passing a pipe through the center of the reel and jacking both ends up in a horizontal position until the reel is free from the surface. To proceed in any other manner may cause kinks or hockles (strand distortion).


## HANDLING ROPE

Never stand in line with rope under tension. If a rope or attachment fails, it can recoil with sufficient force causing physical injury. Synthetic rope has higher recoil/snapback tendencies than natural fiber rope.
Reverse rope ends regularly, particularly when used in tackle. This permits even wearing and assures longer, useful life. When using tackle or slings, apply a steady, even pull to get full strength from rope. For maximum safety and economy, always use slings employing an angle of about $45^{\circ}$.

## OVERLOADING

## Do not overload rope. Sudden strains of shock loading can cause failure.

Avoid sudden strains - shock loads can exceed breaking strength. Shock loading can cause failure of a rope normally strong enough to handle the load. Working loads are not applicable when the rope is subject to significant dynamic loading. Whenever a load is picked up, stopped, moved, or swung, there is an increased force due to dynamic loading. The more rapidly or suddenly such actions occur, the greater this increase will be. In extreme cases, the force put on the rope may be two, three, or even more times the normal load involved. Examples could be picking up a tow on a slack line or using a rope to stop a falling object. However, working loads as given do not
 apply in all such applications as towing lines, life lines, safety lines, climbing ropes, or the like.
Users should be aware that dynamic effects are greater on a low elongation rope such as manila than on a high elongation rope such as nylon, and greater on a shorter rope than on a longer one. Excessive dynamic loading of a high elongation rope is equally dangerous, because of stored energy which will cause the rope to recoil dangerously if it breaks. When a working load has been used to select a rope, the load must be handled slowly and smoothly to minimize dynamic effect and avoid exceeding the provision for them.


## WINGHING LINES

## Proper procedures will prevent kinks and hockles in three-strand twisted rope.

Repeated hauling of a line over a winch in a counterclockwise direction will extend the lay of twisted rope and simultaneously change the twist of each strand. As this action continues, strand hockles or back turning may develop. Once these hockles appear they cannot be removed, and the rope is permanently damaged at the point of hockling. If the line is continuously hauled over a winch in a clockwise direction, the rope lay is shortened, and the rope becomes stiff and will kink readily.

## GHEGKING R•PE FOR WEAR

## Avoid using rope that shows signs of aging and wear. If in doubt, destroy the used rope.

No type of visual inspection can be guaranteed to accurately and precisely determine actual residual strength When the fibers show wear in any given area, the rope should be re-spliced, downgraded, or replaced. Check the line regularly for frayed strands and broken yarns. Pulled strands should be rethreaded into the rope if possible. A pulled strand can snag on a foreign object during a rope operation.
Both outer and inner rope fibers contribute to the strength of the rope. When either is worn, the rope is naturally
 weakened. Open the strands of rope (either three-strands or braided) slightly and look for powdered fiber, which is one sign of internal wear. A heavily used rope will often become compacted or hard which indicates reduced strength. The rope should be discarded if this condition exists.


## SPLIGNG <br> Join rope ends by splicing.

Knots can decrease rope strength by as much as $60 \%$. Use the manufacturer's recommended splices for maximum efficiency. Other termination can be used, but their strength loss with a particular type of rope construction should be determined and not assumed

## GHEMIGALS

Avoid chemical exposure.
Rope is subject to damage by chemicals. Consult the manufacturer for specific chemical exposure such as solvents, acids, and alkalies. This is particularly true for natural fiber rope. Consult the manufacturer for recommendations when a rope will be used where chemical exposure (either fumes or actual contact) can occur.


## HEAT

## Avoid overheating.

Heat can seriously affect the strength of rope. When using rope where temperatures exceed $140^{\circ} \mathrm{F}$ (or if it is too hot to hold), consult the manufacturer for recommendations as to the size and type of rope for the proposed continuous heat exposure conditions. When using ropes on a capstan or winch, care should be exercised to avoid surging while the capstan or winch head is rotating. The friction from this slippage causes localized overheating which can melt or fuse synthetic fibers or burn natural fibers, resulting in severe loss of tensile strength.

Synthetic fiber ropes will show a reduction in strength when used at elevated temperatures. Because of this property, caution should be taken when using synthetic rope at elevated temperatures, for the rope will fail under loads well below its published breaking strength. In addition, even though synthetic rope is being used at $75^{\circ} \mathrm{F}$, if it has been stored at elevated temperatures over a long period of time it can fail under loads below its rated breaking strength. If the user has any doubts concerning the strength of the rope, he or she should contact the manufacturer.

## GAUTION: <br> Heat can seriously affect the strength of synthetic ropes. The temperature at which $50 \%$ strength loss can occur in new and unused ropes is: Polypropylene = $150^{\circ}$ F, Nylon $350^{\circ} \mathrm{F}$, Polyester - $300^{\circ} \mathrm{F}$.

## ABRASION

## Avoid all abrasive conditions.

All rope will be severely damaged if subject to rough surfaces or sharp edges. Chocks, bitts, winches, drums, and other surfaces must be kept in good condition and free of burrs and rust. Pulleys must be free to rotate and should be of proper size to avoid excessive wear. Restraining clamps and similar devices will damage and weaken the rope and should be used with extreme caution.


## STORAGE AND GARE OF ROPE

## All rope should be stored clean, dry, out of direet sumlight, and away from extreme heat.

Cordage should be stored in a cool, dry and well ventilated warehouse. It should be kept off the floor, and on racks to provide ventilation underneath. Never store rope on a concrete or dirt floor, and under no circumstances should cordage and acid or alkalies be kept in the same building. Natural fiber rope mildews and decays if stored wet. Do not store rope in direct sunlight. Some synthetic rope (particularly polypropylene and polyethylene) may be severely weakened by prolonged exposure to ultraviolet (UV) rays unless specifically stabilized and/or pigmented to increase its UV resistance. UV degradation is indicated by discoloration and the presence of splinters and slivers on the surface of the rope.

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WARNING:
All synthetic rope under load will recoil if a fitting such as a chain, hook, cleat, bolt, pin,
or ball-hitch and so forth should fail.
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The snapback action can propel the fitting and the rope causing serious injury to persons or property anywhere in the vicinity. This danger can exist from failure of the fitting within the rope's safe working load. Check all fittings, bolts, shackles, connectors, pins, mountings, splices, and so forth before using.

## The Gordage Institute publishes standards for strengths, weights and testing procedures. Send for a copy of the publications list.

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