

TECHNICAL DATA SHEET

Carbon Cordage

DESCRIPTION:

Carbon cordage is braided using carbonized polymer thread also known as tow. The raw material for the fibers is made from PAN or Rayon. The continuous fibers are manufactured and then carbonized through a series of rollers, combined into bundles, and collected into spools for easy use. The cords are comprised of 4,000 to 36,000 individual filaments in a braided structure. Maximum service temperature in an oxidizing environment is 400°C and in vacuum 2400°C.



Benefits

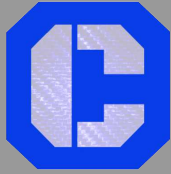
- High Strength
- Light Weight
- Excellent thermal stability
- Good corrosion resistance
- High tensile and chemically inert to most chemicals from pH 0-14, excluding strong oxidizers like nitric or sulphuric acids

Typical Applications

- Sewing or banding carbon or graphite felts in vacuum inert atmosphere furnaces or pump packing
- Wrapping of parts to provide insulation on certain sections and to hold parts in place
- Quick repair applications where bailing wire will not work

Technical Specifications Board

| Type | Unit | 4K Cordage | 12K Cordage | 12K Tight W. Cordage | 18K Cordage | 24k Cordage | 24k Tight W. Cordage | 36k Cordage |
|------------------------|-------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Temperature Rating | In vacuum env. In oxidizing env. | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C | 4352°F 2400°C 752°F 400°C |
| Diameter | Inches mm | 0.025 0.64 | 0.033 0.85 | 0.033 0.85 | 0.039 1 | 0.059 1.5 | 0.125 3 | 0.079 2 |
| Yield | yds/lb m/kg | 1700 3,425 | 540 1,088 | 540 1,088 | 400 806 | 275 554 | 275 554 | 192 386 |
| Breaking Strength | lbs Newtons | 35 156 | 90 400 | TBA TBA | 120 535 | 165 735 | TBA TBA | 232 1,035 |
| Knot Breaking Strength | lbs Newtons | 11 49 | 43 191 | TBA TBA | 60 267 | 82 365 | TBA TBA | 110 490 |
| Spool Sizes | Meters | 150 | 150 | 150 | 150 | 150 | 150 | 125 |



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| Typical Physical Properties | | | | | | | | |
|-----------------------------|------------------|---------------|----------------|-------------------------|----------------|----------------|-------------------------|----------------|
| Type | Unit | 4K Cordage | 12K Cordage | 12K Tight W. Cordage | 18K Cordage | 24k Cordage | 24k Tight W. Cordage | 36k Cordage |
| Minimum Order | Meters Spools | 1200 8 | 1200 8 | 1200 8 | 1200 8 | 150 1 | 150 1 | 125 1 |
| Elongation | % | 0.7 | 2.5 | TBA | 2.5 | 5.7 | 2.1 | 1.14 |
| Carbon Content | % | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Alternate Sizing | - | Contact Us | Contact Us | Contact Us | Contact Us | Contact Us | Contact Us | Contact Us |