WIRE ROPE PRODUCT GLOSSARY





Lexco Cable aims to delight customers by supplying value added wire rope related products.



Wire Rope Glossary

PVC / Vinyl Coated Cable



The PVC / Vinyl coating is a jacket. When we say "PVC" and "vinyl," they're one and the same. We use the term "cable" because it would be inclusive of many different wire strand constructions.

Nylon Coated Cable



The nylon coating is a jacket. With nylon, there are different resin types within the nylon family. The majority of nylon coatings fall under the nylon 6 family. When higher performance is required, we coat in the nylon 11 family since nylon 11 can handle higher cycling applications with more rigorous friction. MIL-DTL-83420 Type 2 Utilizes a nylon 11 jacket.

Black Aircraft Cable



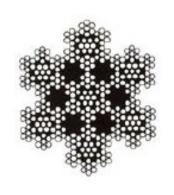
A galvanized cable with a black finish applied. The black finish is not plastic, but installed by powder coating, black oxidizing, or anodizing.

Impregnated Wire Rope



Plastic surrounds each strand. As a result, none of the strands rub against each other. Benefits include superior wear resistance and protection of the wire rope from condensation or moisture.

Aircraft Cable $(7 \times 7, 7 \times 19)$ Stainless Steel & **Galvanized**



The term "aircraft cable" is used to describe both commercial grade (RR-W-410; ASTM A1023) and military specification (MIL-DTL-83420). The term refers to 7×7 and 7×19 strand core constructions; however, many people will also use the term "wire rope" in reference to the same constructions. Commercial grade can be of import or domestic origin whereas military spec is always stranded and closed in the USA. Commercial grade should never be used for critical aerospace applications. Only MIL-DTL-83420 is appropriate for critical aerospace applications. Diameters typically include 1/32" through 3/8".



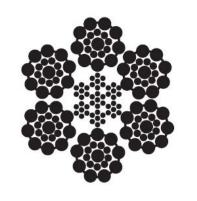






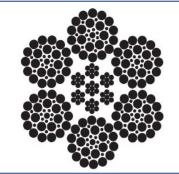
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Wire Rope -**General Purpose** (6 × 19 Class / 6 × 37 Class)



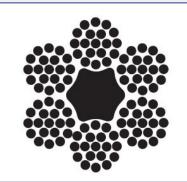
General purpose wire rope (GP wire rope for short) infers that the stranding construction is either 6 × 19 class or 6 × 37 class. Diameters typically start at 3/16". The common denominator among GP wire rope are the six outer strands laid around the core. 6 x 19 class means there are 16-26 wires per strand. This class includes 6×25 and 6×26 constructions. 6 × 19 is commercial grade RR-W-410 Type I, Class 2. 6 × 37 class means 27-49 wires per strand. This class includes 6 × 31 and 6 × 36 constructions per RR-W-410 Type I class 3.

Independent Wire Rope Core (IWRC)



The core of the wire rope is made of steel wires, which run straight through the center. All of the outer strands are laid independently around the wire rope core.

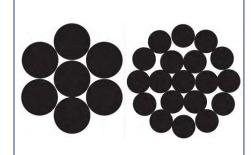
Fiber Core (FC) **Wire Rope**



Typically, fiber core wire rope means that the wire rope's core is made from fibrous rope. There are also special cases when polycores are used, such as in conveyor applications. Because

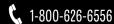
fiber core wire rope cores are not made of steel wires, the strength of the overall wire rope is less than the equivalent IWRC model. On the other hand, the fiber core allows the wire rope to be even more flexible than its IWRC counterpart.

Strand



The most common examples of strand are 1×7 and 1×19 . 1 × 7 means there are 7 wires total, and 1 × 19 means there are

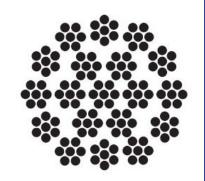
19 wires total. Because there are fewer wires in strand compared to wire rope or aircraft cable, strand is less flexible and has less stretch. The most common application for 1×19 is architectural cable railings. The most common specification for a 1 × 7 is ASTM A475. Common applications for 1 × 7 include guying of towers and parking garage barriers. 1 × 7 ASTM A363, meanwhile, is commonly used for pole line. Mil spec strand is covered by MIL-DTL-87161.





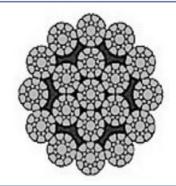
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Wire Rope -**Rotation Resistant**



Each strand layer alternates direction to balance the wire rope. The level of resistance to rotation provides distinction among the various types of rotation resistant wire rope. Some examples of rotation resistant wire ropes (listed in increasing order of rotation resistance) include 8 × 19 class, 19 × 7 class and 35 × 7 class.

Wire Rope -Compacted / Swaged



Compacted/swaged wire rope means that the strands are flattened, which results in higher breaking strength and increased abrasion resistance. Compacted/swaged wire rope is available in Bright (plain steel with lube). The typical application is logging.

Wire rope products are utilized in vastly diverse industries and environments. Our job at Lexco Cable is to guide our customers' decisions in selecting the optimal combination of wire rope products for their unique applications.

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