

ROPE SELECTION GUIDE						
FIBER TYPE	NYLON	POLYESTER	POLYPROPYLENE	POLYETHYLENE	MANILLA	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 (APPROX)	20%-34%	15%-20%	15%-20%	10%-15%	10%-15%	5%-10%
WATER ABSORPTION	6%	ZERO	ZERO	ZERO	100%	100%
MELTING POINT	48 DEGREES F	500 DEGREES F	330 DEGREES F	275 DEGREES F	DOES NOT MELT	DOES NOT MELT
ABRASION RESISTANCE	2	1	4	5	3	6
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 OIL AND 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	0.9	0.95	1.38	1.54

**CAUTION:**

**Use of Working Loads**

Because of the wide range of rope use, rope condition, and exposure to the various factors affecting the rope, it is impossible to make blanket recommendations as to the correct choice of rope to use. However, we have provided the tensile strength for each diameter and type of rope. These strengths are based on tests of new and unused rope, with appropriate splices. Proper choice, care and inspection of the rope are essential for reasonably safe use of the rope. Consult your cordage vendor for proper use.

**Dynamic Loading Voids Normal Works Loads**

Dynamic Loading occurs when rope is subjected to sudden or extreme stress. Figures given as working loads are void if rope has been subjected to dynamic loading, high temperatures, long periods of load, extreme stress, improper use or storage.

**Effect of Temperature on Tensile Strength**

The tensile strength charts apply to ropes tested at normal room temperature (70°F). Ropes have lower tensile strength at higher temperatures. Continued exposure at elevated temperatures causes permanent damage.

**WARNING! MISUSE OF ROPES COULD RESULT IN SERIOUS INJURY.**