

## Rope Specifications

**AVERAGE TENSILE STRENGTHS** shown are for new (unused) rope and will decrease after use. All tests were performed in accordance with ASTM test method 4268-83.

The rope strength will be reduced after use due to heat, abrasion, ultraviolet or chemical exposure. The tensile strengths may be further reduced by up to 50% as a result of knots or kinks.

**MINIMUM TENSILE STRENGTHS** are defined as two standard deviations (typical about 15%) below the average and also refer only to new and unused ropes.

**MAXIMUM WORKING LOADS** are determined by dividing the average tensile strength by the safety factor. The safety factor is a function of the physical properties of the rope, the age and history of the rope, the type of service it will be subjected to and the risks involved if failure occurs. For a rope manufacturer to give blanket working load recommendations would be like a car manufacturer giving the “safe driving speed” of their cars.

Obviously the conditions of use far outweigh the design characteristics of the rope. Typically safety factors vary from 3:1 (for new rope used in applications with uniform loading and where failure would cause little or no risk to equipment or personnel) to 20:1 (for conditions involving moderate shock loading, possibility of snags or kinks or where failure could cause severe risk to equipment or personnel).

**WORKING ELONGATION** is shown from a preload tension of 200 times the diameter squared per the ASTM test specification.

**ROPE WEIGHTS** shown are average and may vary plus or minus 5%.

### SPECIAL REQUIREMENTS

**FACTORY SPLICING** of various types is available for all of our ropes. Splices can be provided with various types of chafe protection or coatings.

**CUSTOM LENGTHS** and special constructions are available on request.

**ROPE TERMINATIONS** DCL can provide custom terminations such as thimbles, links, rings and custom hardware. Terminations are available in plastic, bronze, stainless steel and galvanized steel. Please call, email or fax your requirements for a quotation.

**SPECIAL COATINGS** such as polyurethane, polyethylene and vinylesters may be applied to any of the synthetic ropes to improve the snag resistance, sunlight resistance or for color coding. DCL can provide ropes with a variety of finishes to meet your needs.

**MILITARY SPECIFICATIONS** Certificates of compliance are supplied at no charge if requested when placing the order. Certified test reports can be provided at an additional charge when requested at the time of the order.

