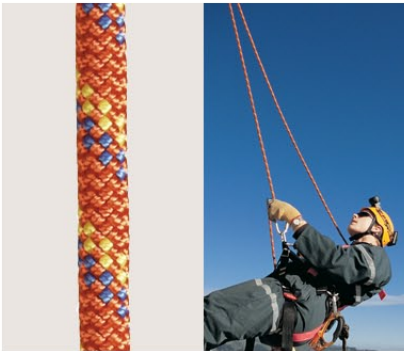


Response® XT Abseiling & Rescue Ropes Certification Specifications



Features/Benefits

Response® abseiling braids are manufactured in the construction defined in the Std EN 1891:1998 as “Low Stretch Kernmantel Rope, a textile rope consisting of a core enclosed by a sheath designed for use by persons in rope access including all kinds of work positioning and restraint; for rescue & speleology”.

Response® abseiling braids are AS4142.3 and EN1891 compliant. Each braid contains a marker tape embedded in the core with clear identification of the recognised standards the braid is certified and will perform to. Additionally, a coloured marker yarn is inserted corresponding with the recorded year of manufacture within our Quality Assurance System.

Criteria	Australian Standard Certification			European Standard Certification		
	Actual Test Results	AS4142.3: 1993	Certified Compliant	Actual Test Results	EN1891: 1998	Certified Compliant
Actual Breakforce (Avg. KN)	34.45	> 29.4 kN	Yes	34.3 kN	(A) ≥ 22 kN	Yes
Knot Breakforce (Avg. KN)	19.00	> 14.7 kN	Yes			
Impact (Fall Test)	3.75 Falls	> 2 Falls (80kg)	Yes			
Dynamic Performance				≥ 5 Drops	≥ 5 Drops	Yes
Elongation @ 80kg	1.4%	< 3%	Yes			
Elongation @ 150kg				1.5%	≤ 5%	Yes
Elongation @ 375kg	6%	< 10%	Yes			
Fall Arrest Peak Force					≤ 6 kN	
Knotability Ratio K	1.04	≤ 1.1	Yes	0.65	< 1.2	Yes
Sheath Slippage	3.5mm	≤ 40mm	Yes	2.28%	(A) Formula	Yes
Shrinkage				3.8%	Not Specified	
Core Mass				42.1%	(A) Formula	Yes
Mass/metre Grams				81		Yes

Note: Above Results relate to Independent Testing of 11mm Response Abseiling Braid.

BREAKFORCE KN: A tensile breakforce is measured from a clean break between the holding apparatus either end. Ropes of high tensile strength have distinct advantage and flexibility than lesser braids. The conversion factor of 1 kN = 101.9716 Kg's. The conversion factor of 1 Kg = 2.20462 Lb's.

KNOT BREAKFORCE: The weakest point in a braid will become the highest pressure point where angled or terminated. The knot breakforce is a measure of retained strength. Knots tested to AS 4142.3:1993 require an overhand knot to use in the measurement. The balance and core/sheath harmonization in construction differentiates the master manufacturing expertise of one brand over another.

STRENGTH: Safety factor note in AS4142.3:1993. “A safety factor of not less than 8 is considered to be an appropriate margin of safety to reflect ageing, environmental effects, and the ideal usage, including the tying of knots in the rope during its use. Warning: Users should ensure that equipment used in conjunction with the rope is suitable for the task it is required to perform.”

FALL TESTS: Key safety results for a working braid in use. Fall tests are conducted to measure the repeated shock of a deadweight (80kg to EN 1891:1998) and the braids ability to retain its structure. The fall arrest peak force identifies the maximum impact force on the braid user in a simulated fall. The shock absorption characteristic is very important to user safety.

ELONGATION AT WORKING LOADS: Elongation is measured at pre-determined load factors. Lower elongation at lesser loads minimises the injury risks associated with bouncing from a fall, however a minimum of 20% elongation is required at break to assist the shock absorption properties of the braid.

KNOTABILITY: Knotability measurements relate to the required space to form a knot. A braid which settles snugly on itself within the knot strongly indicates good flexibility. Lower test measurements are preferred.

SHEATH PROPORTIONS: The balance Core & Sheath determines several characteristics within the braid. High Sheath proportion gives added abrasion resistance when coupled with consistency and uniformity of fibre alignment. High abrasion resistance is directly correlated with product life cycle in reasonable use. It should also be noted that a braids strength will primarily be derived from the core and on this basis the grams per metre width of the total braid must be considered concurrently.

IMPORTANT NOTICE: The practice of Static Descent for the purpose of Sport, Industrial or Rescue usage may involve inherent dangers emerging from technique or technical application or the impinging of external factors. Donaghys products are manufactured to the highest quality and certified to the standards so labelled, however correct and proper usage in conjunction with certified hardware is imperative to enhancing safety in use. In the case of misuse of any kind, full onus of responsibility rests with the user.

To order – Australia 1800 644 404, New Zealand 0800 942 006, www.donaghys.com