GTM Composite Double Braid

MEG4 Compliant

GTM Composite Double Braid ropes have very high strength, are firm with a round profile, and have extremely low stretch. These durable, torque-free synthetic ropes are excellent for replacing steel wire rope in winch applications and are designed to withstand drum compression. MEG4 certified GTM ropes are well suited for use as vessel mooring lines.

GTM Double Braid ropes are constructed with a braided Plasma® HMPE fiber core. This core is encased in a tightly braided jacket of a new generation HMPE fiber that offers the highest abrasion and cut resistance durability. The final construction of core and cover work in balance to provide excellent service life.

GTM braided rope standard color is orange, but is available with a polyurethane finish in clear or any of five additional colors; black, yellow, red, blue or green.

Features & Benefits

- MEG4 compliant
- Highest strength
- Lowest stretch
- Low creep
- Firm hand
- Torque free

Applications

- Vessel mooring lines
- Winch lines

Type approved product

DNV·GL

ABS TYPE APPROVED PRODUCT

Nominal Diameter		Size (circ. in)	Load Bearing Linear Density		Linear Density		Line Design Break Force	
inch	mm		lbs/ 100ft	kg/ 100m	lbs/ 100ft	kg/ 100m	lbs	MT (tonnes)
1	24	**3**	**16.5**	24.6	**25.3**	37.7	**97,000**	44.0
1-1/8	28	**3-1/2**	**20.4**	30.4	**30.9**	46.0	**120,000**	54.4
1-1/4	30	**3-3/4**	**24.3**	36.2	**38.7**	57.6	**145,000**	65.8
1-5/16	32	**4**	**27.4**	40.8	**43.2**	64.3	**159,000**	72.1
1-3/8	34	**4-1/8**	**30.7**	45.7	**47.1**	70.1	**175,000**	79.4
1-1/2	36	**4-1/2**	**36.9**	54.9	**58.0**	86.3	**202,000**	91.6
1-5/8	40	**5**	**42.9**	63.8	**65.3**	97.2	**228,000**	103.0
1-3/4	44	**5-1/2**	**51.2**	76.2	**75.3**	112.1	**250,000**	113.0

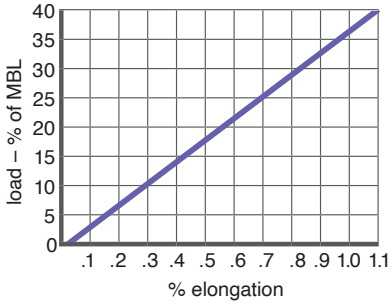
Line Design Break Force (Tensile Strength) is determined in accordance with Cordage Institute CI-1500, Test Methods for Fiber Rope and ISO 2307. Published Line Design Break Force (LDBF) assumes spliced eye terminations at each end of the rope. Weights actually calculated at linear density under stated preload (200d^2) plus 4%. Diameter and circumference size published are nominal and reflect rope size after loading (10 cycles) to 50% of LDBF. See reverse side for application and safety information. A MEG4 Base Design Certificate is provided to verify that the design range for this product has been manufactured, tested, and documented according to the guidelines in Appendix B of the OCIMF Mooring Equipment Guidelines Fourth Edition.

Technical Information

Specific gravity	**0.98***
Melting point	**284°F (140°C)**
Critical temp.	**150°F (65°C)**
Coefficient of friction	**0.12–0.15**
Elongation at break	**2.5–3.5%**
Fiber water absorption	**0–1%**
UV resistance	**excellent**
Wet abrasion	**superior**
Dry abrasion	**superior**
Material Type (core)	**HMPE**
Material Type (jacket)	**HMPE**
Load bearing constr.	**12-strand braid**
Jacketed	**yes**
Floating	**yes**
Rotating	**no**

* value based on data supplied by the fiber manufacturer for new, dry fiber

GTM Composite Double Braid Elongation (%)



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Rope Specifications

Line Design Break Force Line Design Break Force values shown are for new (unused) rope and will decrease after use. All tests are performed in accordance with Cordage Institute Standard CI 1500-2. 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.

Working Load Limit The Working Load Limit is the maximum load that a mooring line should be subject to in operational service, calculated from the standard environmental criteria. The WLL is expressed as a percentage of the ship design Minimum Breaking Load and should be used as the limiting value in both ship design and operational mooring analysis. See Marine Equipment Guidelines, Fourth Edition, section 5 for more information.

Rope Linear Density Rope Linear Densities shown are average and may vary plus or minus 5%.

Working Elongation Working elongation is shown from a preload tension of 200 times the diameter squared per the Cordage Institute Standard.

Special Requirements

Factory Splicing Various types are available for all of our ropes. Splices can be provided with various types of chafe protection or coatings.

Rope Terminations Cortland 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, or email your requirements to cortland@cortlandcompany.com for a quotation.

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

Commercial and 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. MEG4 mooring line certificates can be provided at an additional charge when requested at the time of the order.

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