

Chemical contamination - Protect your rope from exposure to harsh chemicals. Exposure to chemicals will cause failure that can result in injury or death. DO NOT allow your rope to come into contact with any compounds containing acids, alkalis, oxidizing agents, phenol or bleaching compounds. Be especially careful to avoid contact with battery acid.

Contaminants can be in the form of liquids, solids, mists and vapors. Contamination may, or may not, be visible and may, or may not be, detectable. If you suspect your rope has been contaminated it must be destroyed by cutting into unusable sections to prevent future use by anyone.

Ultraviolet ray exposure - Ropes should always be stored in a rope bag to reduce the possibility of exposure to contaminants and unnecessary exposure to Ultraviolet [UV] rays. Solar degradation should be checked by rubbing the surface of the rope with your thumbnail. If degradation has taken place, the surface material will come off as powder.

CARRYING, MAINTENANCE & STORAGE

During all use, carrying, storage, and transport keep the equipment away from acids, alkalis, exhaust emissions, rust and strong chemicals. Do not expose the equipment to direct heat, flame, or high temperatures or other adverse environmental conditions.

If the equipment becomes soiled, it can be washed in cold water with a mild soap. Soak the rope for about 30 minutes in a plastic tub of water with a mild soap. Do not use any cleaners with bleach or bleach substitutes. Rinse the rope in several baths of clean water to remove all traces of residue. It is recommended to pull it through a rope washer twice. Do not use a pressure washer.

Air dry in temperatures between 10° C and 30° C. Do not dry the equipment in direct sunlight or using an automatic dryer. The rope must be loosely coiled and air-dried in the shade away from direct sunlight. Do not dry rope in the sun because of the damaging effects on the fibers from prolonged exposure to ultraviolet rays. During storage and transport, protect the equipment from heat, direct sunlight, moisture, chemicals, and external loads or impacts. Consult with the manufacturer in case of any doubt.

WARRANTY & REPAIRS

If your CMC product has a defect due to workmanship or materials, please contact CMC Customer Support at info@cmcpro.com for warranty information and service. CMC's warranty does not cover damages caused by improper care, improper use, alterations and modifications, accidental damage or the natural breakdown of material over extended use and time.

All repair work shall be performed by the manufacturer. All other work or modifications void the warranty and releases CMC from all liability and responsibility as the manufacturer. This equipment must never be modified from its original design. Modifications will result in an unsafe product and are not recommended under any circumstances. Modifications to this product can reduce performance specifications.

SAMPLE INSPECTION AND MAINTENANCE LOG

The following sample log provides an example of the records that should be maintained by the purchaser or user of life safety equipment. The user should also record manufacture date and target retirement date based on the manufacturer's stated lifespan for this equipment.

EQUIPMENT INSPECTION AND MAINTENANCE LOG			
Item _____ # _____		Date in Service _____	
Brand/Model _____		Strength _____	
Date	How Used or Maintained	Comments	Name

 Find the latest version of this manual at cmcpro.com.



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CMC TECH G™



MEETS THE LIFE SAFETY ROPE REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500.

28315X, CMC TECH G™ ROPE

- CLASS: GENERAL-USE ROPE
- MINIMUM BREAKING STRENGTH: 40.2 KN (9,032 LBF)
- CERTIFIED DIAMETER: 11 MM (7/16IN)
- ROPE FIBER(S): NYLON & POLYESTER, TECHNORA® SHEATH
- ELONGATION AT 1.35 KN (300 LBF): 2.4%
- ELONGATION AT 2.7 KN (600 LBF): 4.6%
- ELONGATION AT 4.4 KN (1,000 LBF): 7.0%

CLASS: GENRAL-USE ROPE



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⚠ WARNINGS

Activities involving the use of this device are potentially dangerous. You are responsible for your own actions and decisions. Before using this device, you must:

- Read and understand these user instructions, labels, and warnings.
- Familiarize yourself with its capabilities and limitations.
- Obtain specific training in its proper use.
- Understand and accept the risks involved.

FAILURE TO HEED ANY OF THESE WARNINGS MAY RESULT IN SEVERE INJURY OR DEATH.

Legend



Imminent risk of serious injury or death.



Appropriate function or use.

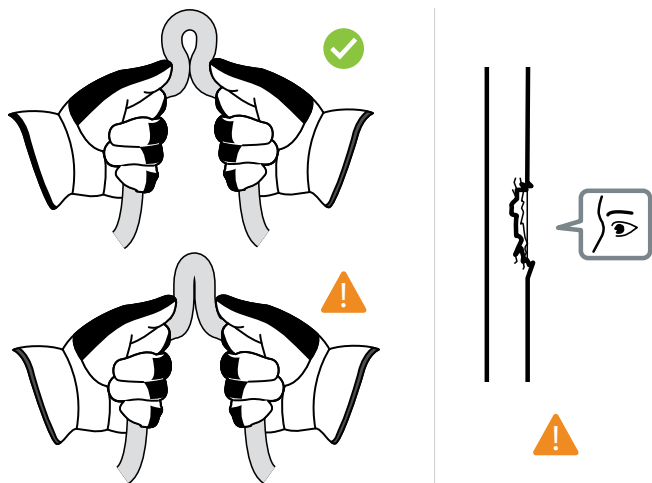


Imminent risk of accident or injury.



Equipment incompatibility.

Before Each Use



Carrying, Maintenance, Storage & Transport



MAX 30°C
(MAX 86°F)



MILD



MAX 30°C
(MAX 86°F)



USER INFORMATION

User Information shall be provided to the user of the product. NFPA Standard 1983, incorporated into the 2022 edition of NFPA 2500 recommends separating the User Information from the equipment and retaining the information in a permanent record. The standard also recommends making a copy of the User Information to keep with the equipment and that the information should be referred to before and after each use.

Additional information regarding life safety equipment can be found in NFPA 1500 and NFPA 1858 and NFPA 1983, incorporated in the 2022 edition of NFPA 2500.

LIFESPAN / INSPECTION / RETIREMENT

The equipment has a lifespan of 10 years from the date of manufacture shown on the product label. The type of use, intensity of use, and environment of use are all factors in determining serviceability of the equipment. A single exceptional event can be cause for retirement after only one use, such as exposure to sharp edges, extreme temperatures, chemicals, or harsh environments. Any concerns about its safe use is cause for retirement. Remove retired equipment from service and destroy it to prevent further use.

Equipment must be retired when:

- It has reached the 10 year age limit.
- It has been subjected to a major event (fall, shockload etc.).
- It has been exposed to extreme environments (sharp edges, high temperatures, corrosive environment etc.) or become contaminated (chemicals etc.).
- It fails to pass inspection or there are any doubts about its reliability.
- It has an uncertain usage history.
- It becomes obsolete due to changes in legislation, standards, technique or compatibility

Inspect the equipment according to your department's policy for inspecting life safety equipment. CMC recommends a detailed inspection by a competent person at least once every 12 months depending on current regulations and conditions of use. Record the date, inspector name, and inspection results in the equipment log as well as any other relevant information to track the usage history.

Before and after each use, the user should:

- Check the equipment for signs of wear, damage, or contamination. Refer to the specific Inspection Criteria provided in the following section.
- Check for the presence of dirt or foreign objects that can affect or prevent normal operation (e.g. grit, sand, etc.).

During each use, the user should:

- Monitor the condition of the product. Hazards may affect the performance of the equipment such as extreme temperatures, sharp edges, chemical reagents, electrical conductivity, cutting, abrasion, climatic exposure, and pendulum falls.
- Evaluate environmental conditions. Damp or icy environments can alter the behavior of the product.
- Check the condition of attachment points and the connections to other equipment in the system. Confirm the compatibility of each component. The use of non-compatible components can lead to catastrophic failure of the system and parts in the system.
- Make sure that all pieces of equipment in the system are correctly positioned with respect to each other. Connectors should be loaded in their strongest orientation.
- Check that the manufacturer-supplied eye termination has not been exposed to heat, direct flame impingement, or abrasion. Confirm there is no worn or broken thread.

INSPECTION CRITERIA

Inspecting a life safety rope involves visually looking for damage, feeling for damage, and checking the rope's history in the rope log. Inspect a new rope before it is put into service and then after each use. The inspection should be done by an experienced person deemed qualified by the agency/organization. Ropes must be inspected visually along every inch of its length. It is the user's responsibility to know the history of his / her rope and make the decision as to when a rope must be retired.

A complete inspection includes a visual and a tactile inspection. Visually inspect the sheath to identify chafed areas, glazed surfaces, discoloration, or variations in diameter. These areas should receive additional scrutiny during the tactile inspection. Look for areas of abrasion or cuts in the sheath where the core is exposed or enough of the sheath is worn that its ability to protect the core is compromised. The tactile inspection should be done with tension on the rope. Feel for variations in size and soft or hard spots that could indicate damage to the core or rope that has been overstressed.

The following are general guidelines that can assist you in deciding when to retire a rope. If your rope has any of these problems listed in the inspection criteria it must be retired.

Abrasion / Sheath Wear - the core is exposed or more than half of the outer sheath yarns are abraded.

Fraying - indicates broken or damaged sheath bundles which is an indication of abrasion or overloading.

Glazing - glazed and / or glossy marks or hard, stiff areas signify heat damage. Typically this is the result of contact with a descender that has become overheated in a fast rappel.

Discoloration - a change in the rope's original color is an indication of chemical damage or exposure to the elements of nature including Ultraviolet [UV] radiation.

Lack of Uniformity in Diameter or Size - indicates core damage. This is noted by a depression in the diameter of the rope, lumpiness of the rope or exposed core strands protruding from the rope.

Inconsistency in texture - possible indication of excessive wear. This is most often noted as soft or stiff areas in the rope.

Use / Age - We recommend a low elongation / static rope be removed from service no more than ten years from its manufactured date.

Loss of Faith - if you feel uncomfortable for any reason or suspect there may be a problem with your rope it should be retired and destroyed.

The manufacturer cannot guarantee the specifications of a used rope. If your rope does not meet the above inspection criteria it **MUST** be retired. This includes all points in the inspection criteria as well as loss of faith or doubt as to the serviceability for the rope. All ropes deemed unsuitable for use must be destroyed by cutting into sections of less than ten feet to prevent future use by an unknowing person.

WARNING: Removal of protective shrink tubing on the sewn term is not advised. This feature protects the stitching and label from premature wear. Removal could jeopardize user safety and product conformance to applicable standards.

LIMITATIONS AND PROPER USE

Tech G excels in harsh environments. It is ideal for applications where improved cut and heat resistance is required. The 100% Technora aramid sheath has superior cut resistance over regular synthetic fibers, providing additional protection for the nylon core.

Tech G is considered a low elongation rope and must not be used in situations when the anchor point is below the user. Remove "slack" in the rope between the user and anchor point prior to applying a load to reduce the possibility of accidentally subjecting the rope, anchor points, and persons to an accidental dynamic loading or impact force. Avoid swing fall hazards encountered when the anchorage is not directly overhead.

Connections to anchors must be made with a minimum of contact with the edge or structure and must be properly padded at any point of contact to prevent fraying and/or cutting. Consideration should also be given to protect the rope in the event of any horizontal or "pendulum" movement of the rope against any surface.

Prior to use of this equipment, the user is required to have a rescue plan. The plan should include, at minimum, details of how to conduct a rescue, location of the closest rescue squad and nearest medical treatment. Using this equipment around moving machinery and electric hazards can be dangerous. Take precautions to protect against these hazards.

Always check every piece of gear in the system to ensure compatibility. Be sure the hardware you use is designed for the rope diameter you choose. Place a rope stop device or figure 8 knot at the end of the lifeline to prevent the fall arrester from traveling off the end.

Be sure anchor points are suitable for the load to be applied. The anchor device or structural member chosen to serve as the anchor point must be compatible with the safety system and must, at a minimum, exceed the rated rope strength. See below for additional guidance.

Sheath protection - Take care to protect your rope from abrasion. Always use a proper rope pad or edge guard. Sheath damage is the most common cause of early rope retirement. Be sure to properly pad surfaces to which the rope is exposed. Be especially sure to inspect hardware for flaws that may damage the sheath strands.

Rope cleanliness - Dirt, mud, and grit will shorten the life of your rope by increasing internal and external abrasion. See the maintenance section for guidance on cleaning. Stepping on a rope has the potential to cause cuts and may grind grit into the core causing internal abrasion. A ground cloth should be used to keep the rope from being in direct contact with mud, dirt, and grit.

Open flame and high temperatures - Tech G is designed for use in high temperatures but the limitations of flame and high temperature exposure must be evaluated and deemed safe by the user based on the properties of the fibers used in the construction of this rope and the hazards present in the use conditions. The melting/degradation points of materials used in Tech G are:

- Outer Sheath: 100% Technora® >300C (572°F)
- Inner Sheath: 100% Orange Polyester 249C (480°F)
- Core: 100% Nylon 212C (413°F)

Accidental dynamic loading - Although low elongation rope is designed to help absorb the energy of accidental dynamic loading, the user is responsible for checking rigging to avoid dynamic loading in any manner whatsoever. If accidental dynamic loading does occur, the rope must be retired and destroyed.

Proper rappelling and belaying techniques - Fast rappels, bounding or swinging, positioning the rope over a sharp edge, dynamically loading a low elongation / static rope are some of the examples of uses that damage your rope and will cause failure and injury or death. Any belay device, ascender, descender or similar hardware will put bends in a rope and have the potential to contribute to rope abrasion. Avoid all worn out hardware as it can destroy your rope. Fast rappels may cause excessive heat from friction that will damage your rope. Always take care to rappel and lower slowly and in control.