

Use & Care Guide

All FXN Rope sizes and supplied lengths | Industrial use

Scope: All FXN Rope sizes and factory-supplied lengths, including FireXNull-approved custom lengths. For industrial use in enclosed electrical and electronic equipment. Read the Compatibility & Installation Guide and current Rope TDS/SDS before use. Keep these documents for reference.

1. Product and Operating Conditions

FXN Rope is a passive, single-use supplemental fire suppression component. Heat at the product activates the microcapsules at $428^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ($220^{\circ}\text{C} \pm 5^{\circ}\text{C}$), releasing FK-5-1-12 locally along heat-exposed sections. No power, sensors, wiring or user action is required for activation. The agent is electrically non-conductive; this is not an electrical-insulation rating for the finished rope.

Condition	Requirement
Normal sustained ambient	$\leq 149^{\circ}\text{F}$ (65°C); $\leq 80\%$ RH, non-condensing.
Unopened storage	-40°F to 149°F (-40°C to 65°C); $\leq 80\%$ RH, non-condensing; original sealed packaging.
Storage period	Up to 2 years from manufacture when stored as specified. Install by the package date.

2. Electrical Safety and Handling

WARNING - ELECTRICAL SHOCK HAZARD

Turn OFF and isolate the applicable power supplies, and verify that the circuit and equipment are de-energized before installation, inspection, removal or adjustment. Electrical work must be performed by a person qualified for the equipment and task. If you cannot verify safely, contact a qualified electrician. In workplaces, follow applicable electrical safe-work and lockout/tagout procedures, including OSHA 29 CFR 1910.333(b).

Wear heat-resistant work gloves, safety glasses with side shields and standard work clothing for handling and installation. These gloves are not electrical-shock protection. Follow equipment-specific electrical-safety procedures and SDS requirements.

3. Installation Summary

1. Select the factory-supplied length for the enclosure volume and application using the Compatibility & Installation Guide. Significant leakage, vents, forced cooling or multiple compartments require FireXNull application review.
2. Plan horizontal routing along the upper interior of the enclosure, above likely ignition sources and exposed to rising heat. Preserve wiring, grounding, electrical clearances, airflow and service access.
3. With power OFF and verified, secure the rope using the supplied magnetic mounting hooks, brackets or cable ties at intervals of 6 to 12 in (15 to 30 cm). Supports must not pinch or crush the rope.
4. Do not cut, crush, puncture, kink, sharply bend, machine or modify the rope. Do not cover it with insulation, barriers, labels, tape or dense wiring. Obtain FireXNull guidance if routing requires a tight bend or non-standard placement.
5. Confirm secure support and unobstructed heat exposure. Record supplied length, lot/date code, location, installation date and replacement date. Close the enclosure and restore power under the applicable safe-work procedure.

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4. Inspection and Ongoing Care

Inspect visually at least annually, and more often where the equipment maintenance program or site conditions require. Isolate power and verify the circuit and equipment are de-energized before access or adjustment.

- Confirm the rope remains securely mounted, properly routed and unobstructed; check supports for looseness or movement.
- Check for crushing, deformation, kinking, cracking, discoloration, swelling or other damage or abnormal appearance.
- Confirm the replacement date has not been reached. Replace damaged, removed, loose, obstructed or visibly abnormal rope.
- Protect from moisture, direct sunlight, UV, strong acids and strong alkalis. Do not wash, solvent-clean, coat or mechanically alter the rope.

5. Replacement and Warranty

Recommended replacement	Up to five (5) years after installation under specified installation and normal operating conditions; replace sooner for activation, damage or abnormality.
Single use	Replace after any known or suspected activation. Do not reuse the remaining rope after a discharge event.
Limited warranty	One (1) year from delivery. See the separate Limited Warranty for coverage, exclusions, remedies and claim instructions.

Storage and replacement intervals are maintenance guidance. They do not extend the one-year warranty or guarantee fire-suppression performance.

6. Fire, Electrical Problems or Activation

- If there is a fire, evacuate and call 911 from a safe location. Do not delay evacuation to operate a breaker or inspect the rope.
- If safe, isolate power and stop using affected equipment. Have qualified personnel inspect and correct the underlying fault before return to service. Suppression does not repair an electrical problem.
- The rope surface can become hot during activation. Allow it to cool; ventilate the area before re-entry or handling. Avoid inhaling vapor and decomposition products. Follow site safety procedures and SDS requirements for PPE and respiratory protection.
- Minor rope-matrix residue may remain after activation; do not assume the finished product leaves no residue. Have qualified personnel assess contamination and use equipment-compatible cleanup methods before re-energizing.

7. Application Boundaries

Industrial use only, within enclosed electrical and electronic equipment. Not intended for consumer use, open-air use, structural fires, kitchen or grease fires, or occupied-space life-safety protection. It is not a replacement for proper electrical installation, inspection, maintenance or repair; for breakers, fuses, AFCI/GFCI protection or other required electrical protection; or for smoke alarms, fire extinguishers, sprinklers or any code-required fire or life-safety system.

Performance depends on sizing, placement, thermal exposure, enclosure conditions and the actual fire scenario. Fire suppression, battery thermal-runaway prevention and propagation prevention are not guaranteed.

8. Disposal and Support

When safe and cooled, place spent material in a sealed, labeled container. Follow the SDS and applicable disposal requirements; the waste generator must determine classification and disposal pathway at disposal. Do not incinerate or flush into drains, waterways or sewers. Follow product labels and SDS warnings. Support: support@firexnull.com or +1 (888) 969-0010.

Companion documents: TDS-FXN-RPE-001-US V3.6; SDS-FXN-RPE-001-US V4.0; FXN-RPE-UC-001-US V1.0; FXN-RPE-CIG-001-US V1.0; FXN-RPE-WTY-001-US V1.0.