
ELE-3COP-265

Title - Installation and Handling Guidelines for C-Lite Cables.

Before starting work please read this document carefully and note the guidance given.

1 Purpose and Scope

The purpose of this document is to ensure that TE C-Lite cable range (which include a broad range of different cable types with descriptions commencing CL105* or CL90*) are handled correctly with regard to

- Installation
- Storage
- Termination
- Cable Support
- Inspection
- Health and Safety

2 Installation Requirements

The C-Lite range of cables are based on lightweight cores with high performance insulation materials but in all other respects the designs follow the standard IEC 60092 requirements with regard to overall cable design, screen design and jacket design and wall thickness. As a result the following installation guidelines are in accordance with IEC regulations and practice. It is assumed that the personnel involved in cable handling and installation will have been trained in, and have some experience with, the general principles of such activities and installers should follow these principles and other good local practices.

Prior to commencing cable pulling, care must be taken to ensure that the pulling equipment attached directly to the cable is tightly fitted over the complete cable and not only to one element, such as the outer sheath, shielding or conductors.

The maximum pulling tension on the cable during manual pulling or mechanical winching should not exceed

5 daN/mm² (per square millimetre of copper)

2.5 daN/mm² (per square millimetre of copper)

Kinking the cable is to be avoided (as would be the case with cables in general), any tendency for the cable to kink can be reduced by rotating the cable drum.

Before pulling and/or dragging cables, care must be taken to ensure that sharp edges and mechanical nips, such as doorways and hatches, are identified and protected, if necessary, to prevent damage during pulling and/or dragging (as would be the case with cables in general)

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Cable routing and clipping shall observe the minimum internal bend radii of

4D for cables \leq 25mm diameter

6D for cables $>$ 25mm diameter

6D for shielded cables

Care should be taken to apply an appropriate torque when tightening band straps and cable ties. (As an optional alternative a polymeric support channel may be used under the band strap).

In general, C-Lite cables do not require special handling characteristics and normal 'good working practice' as would be the case for other shipboard cables will be satisfactory.

3 Storage Requirements

Avoid leaving cables where they can be damaged by heavy mechanical equipment.

The cable shall be protected by moisture ingress by sealing the cable ends. Drums of cables should be stored in a dry environment temperature range -15°C to $+60^{\circ}\text{C}$.

Cable reels should ideally be stored in an upright position (i.e. not flat on the reel flange). This will avoid the possibility of 'settling' of the cable reel may impede subsequent de-reeling.

4 Termination

Termination of cores (which may include crimping or soldering) should be conducted following normal procedures. Wire stripping also follows normal procedures and, if required, details of stripping tools and settings can be supplied by TE.

5 Cable Support

Cables may be supported and secured using normal practices which may include clips, saddles or straps to bulkheads or through an installed cable support system.

6 Inspection Requirements

Following installation guidelines should prevent any possible damage to the cable during installation. However, as a precautionary measure it is recommended that an inspection be conducted after installation to check for the following

Sheath: There should be no splits, tears or wear caused by excess abrasion.

Cores: There should be no visible component cores other than those intended at termination.

Cable Support: There should be no signs of damage caused by excessively tightened cable ties or straps.

Cable Glands: Inspect to confirm that cable glands are of the correct 'fit' and quality of installation.

Electrical Continuity: Check to ensure that continuity and routing is satisfactory and according to design plan.

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7 Health and Safety

Adhere to local or National Codes and Regulations relating to Safe Working practices.
A knife should never be used for wire stripping as this can easily cause personal injury and conductor and/or insulation damage.

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1	Initial	23/12/08	Tom Lally	Paul Newman
2	Visual Identity	06/06/11	Tom Lally	Paul Newman

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