
ELE-3COP-606

Title – Application of S1081 and T-DR-25 Tapes

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

1 Purpose and Scope

This COP describes the procedure to be used when installing S1081 Self Amalgamating Tape and T-DR25 Tape. The instructions in this document take preference over IPC/WHMA requirements, as do the drawing and any customer documentation.

It is good working practice that where trained operators have not installed this product for over 6 months, a sample installation should be carried out by the operator to refresh installation practice. Performance of the sample can be checked using the inspection standards described within this document.

2 Performance Objective

This code of practice is produced to support operators already trained in the installation of heat shrinkable and harnessing products. It identifies the procedure to be used when:

- A)** Installing S1081 self amalgamating tape to form a tight fitting continuous cover. S1081 is used as a protective wrap on damaged cables and irregular shapes where it is not practical to install a heat shrinkable moulded part or tubing. It is non-flame retarded and has a good seal against splash proof but not immersion. When heated in excess of 120°C, the tape shrinks lengthways and self-amalgamates, forming a tight fitting continuous cover.
- B)** Installing T-DR-25 Tape to form a tight fitting continuous cover. T-DR25 Tape is recommended for repairing DR-25 cable jackets and protecting wire bundles, it is flame retarded and has a good seal against splash proof but not immersion. When heated in excess of 130°C, the tape shrinks lengthways and “bonds”, forming a tight fitting continuous cover.

3 Materials and Equipment:

100 grit Emery Cloth or equivalent.

Degreasing Agent isopropyl alcohol or isopropanol (IPA) impregnated tissue wipe.

Heavy duty tissues.

Heat Gun CV1981 or equivalent. Other hot air guns may be used but these must be capable of delivering the temperatures required for the installation of the tape. This also includes hot air guns with temperature displays.

Reflector PR13 (Cable diameters up to 6mm).

Reflector PR12 (Cable diameters 6 – 25mm).

Safety Glasses.

4 Health and Safety

Adhere to local Codes and Regulations relating to Safe Working practices. For the U.K. adhere to requirements of the Health and Safety at Work Act 1974 and subsequent amendments.

The installation should be carried out in a well ventilated area.

Always wear heat resistant safety gloves when handling hot plastics and adhesives.



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The use of suitable protective gloves and barrier cream is recommended when using solvents. Avoid prolonged repeated skin contact with solvents and always wash hands after using solvents. Care should be taken to wear safety glasses when using and handling chemical solvents. If eyes do become contaminated, flush with water and obtain medical assistance immediately. Always ensure all equipment is calibrated before use.

5 Procedure for S1081 Tape

5.1

Ensure all areas are cleaned with solvents prior to use. The surface should be free from contaminants such as oil, grease and dirt. Abrade using 100grit abrasive paper and dry wipe.

5.2

Tightly wrap the S1081 tape around the substrate using a 50% overlap. The free end of the tape may be secured by “tacking” with a soldering iron or hot air gun.

5.3

The entire taped area should be heated in excess of 120°C using a hot air gun and reflector, alternatively placed in an oven at 120°C for 15 minutes. This will cause the tape to amalgamate. When used with cable jacketed with TE Raychem Brand DR-25, NT or RNF-100 tubing's, S1081 will also bond to the substrate to give a total seal. For other substrates it is recommended that a brief adhesion test is carried out prior to installation. When necessary S1030 Adhesive Tape may be placed at each end, under the layer of S1081 in order to seal more effectively.

6 Procedure for T-DR-25 Tape

6.1

T-DR-25 tape is available for repair and retrofit applications.
T-DR-25-NR1-0 for repairing DR-25 cable jackets and protecting open wire bundles.
T-DR-25-NR2-0 for higher shrink ratio use on harness transition areas.

6.2

Ensure all areas are cleaned with solvents prior to use. The surface should be free from contaminants such as oil, grease and dirt. Abrade using 100grit abrasive paper and dry wipe.

6.3

Tightly wrap the T-DR-25 tape around the substrate using a 50% overlap. S1030 Adhesive Tape or S1125 epoxy adhesive should be applied at the ends of the T-DR-25 tape to give sealing and prevent the T-DR-25 tape from unwrapping.

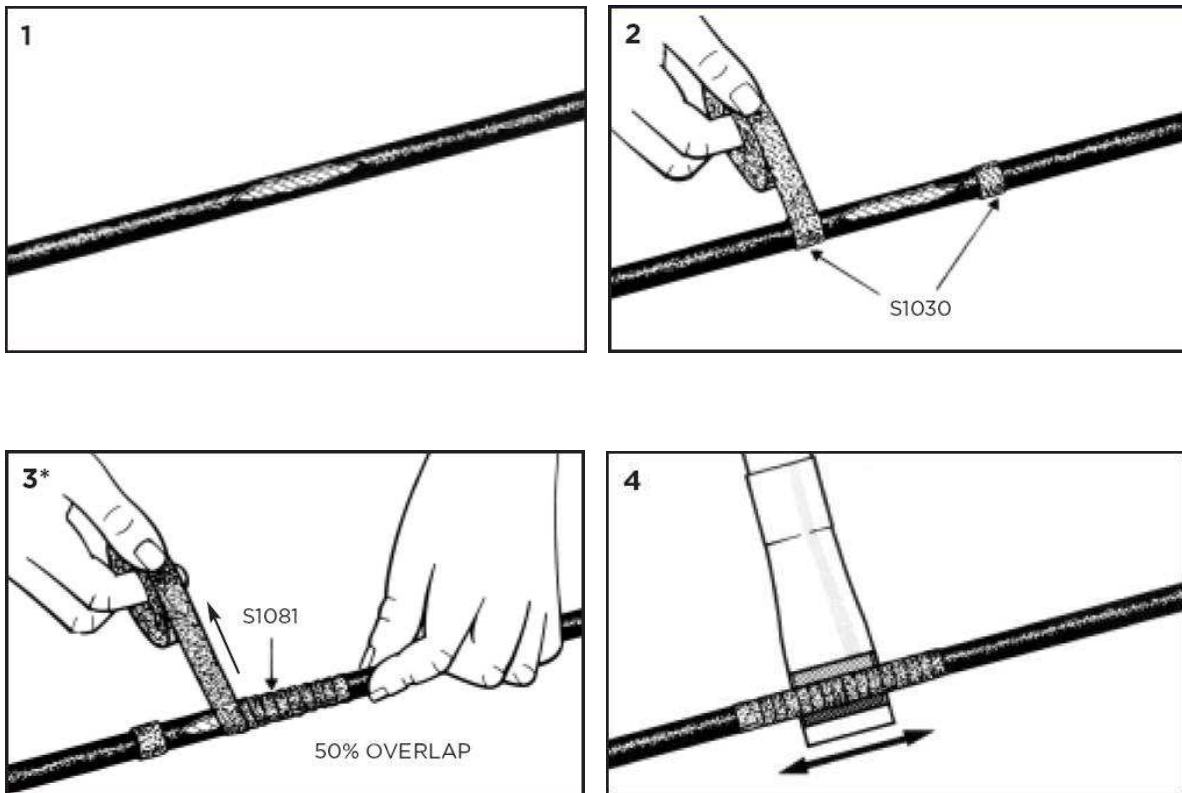
6.4

The entire taped area should be heated in excess of 130°C using a hot air gun and reflector. This tape is not self-amalgamating and only gives a “bond” to itself and the substrate underneath by the grip obtained in the shrinkage during installation. Although it does not bond in the same way as a self-amalgamating or adhesive tape would the tape acts as a barrier to fluids.

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7 Typical Installation diagram



8 Inspection Requirements

Allow bonds to cool before flexing.
There should be no separation at the point of overlap on the tape.
The tape must be free from fingerprints, scorch marks and any excess adhesive.

7 Visual Standards

No visual standard currently available.
Refer to document ELE-3COP-607 for details on S1030 adhesive tape.
Refer to document ELE-3COP-604 for details on S1125 epoxy adhesive.



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1	Initial	08/03/2012	Paul Newman	Neil Dorricott

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