FibreFlow

EM-WRAP Installation Instructions

(With 4no. 7mm Exit Tubes)

Introduction

This document outlines the best practice for installing the double layer EM-WRAP when used with (up-to) 4no.exit tubes for an IP67 rated tube branch out. Typically used with Emtelle 12-way Direct Install 5/3.5mm or the 3-way 10x8 with 3 x 5/3.5mm tubes.

Kit Contents

The Double Layer EM-WRAP Kit Contains the following items:

Item	Image	Description
EM-WRAP		1no. EM-WRAP Double Layer Closure
Cable Ties		6no Nylon Cable Ties
Amalgamating Tape		2no. Rolls of 25mm amalgamating tape

Recommended PPE

Emtelle recommend wearing the following safety clothing when installing EM-WRAP products. It is the responsibility of those installing the product to follow any network safety rules.

Item	Image	Description
Hi-Vis Jacket/Vest		Hi visibility protective workwear. A requirement when working on site in the UK
Safety Glasses		Eyewear to protect from airborne debris and particles.
Work Gloves		Protects the hands from injury and offers additional grip when handling the product.

Recommended Tools & Equipment

The following tools & equipment were used to complete the installation as described within this document.

Item	Image	Description
Measuring Tape		Required to measure no less than 300mm
Marker Pen		Pen or paint marker to mark out measured dimensions.
Circumferential Sheath Cutter		Use to cut around the circumference of a tube bundle sheath
Longitudinal Sheath Cutter		Use to cut along the length of a tube bundle sheath
Tube Cutter		Use to cut individual (5 & 7mm) tubes
Rounding Tool		For checking the bore of a cut tube.
5mm Compression End Caps		Required to cap off open ends of 5mm tube
7-5mm Reducing Compression Connector		Required to join 5 & 7mm tubes.
Cutters/Snips		Use to cut excess from cable ties.

Step 1

Use the tape measure and pen to measure and mark out a 300mm section of the duct where the tubes need to branch out from the tube bundle.

Step 2

Use the sheath cutter to create a circumferential cut around both marks created in Step 1.

Step 3

If required, flex the sheath slightly to break away the sections scored with the sheath cutter in Step 2.

Step 4

Use the sheath cutting tool to create two longitudinal cuts 180 degrees apart. These longitudinal cuts should run the entire length between the two circumferential cuts made in Step 3.

Step 5

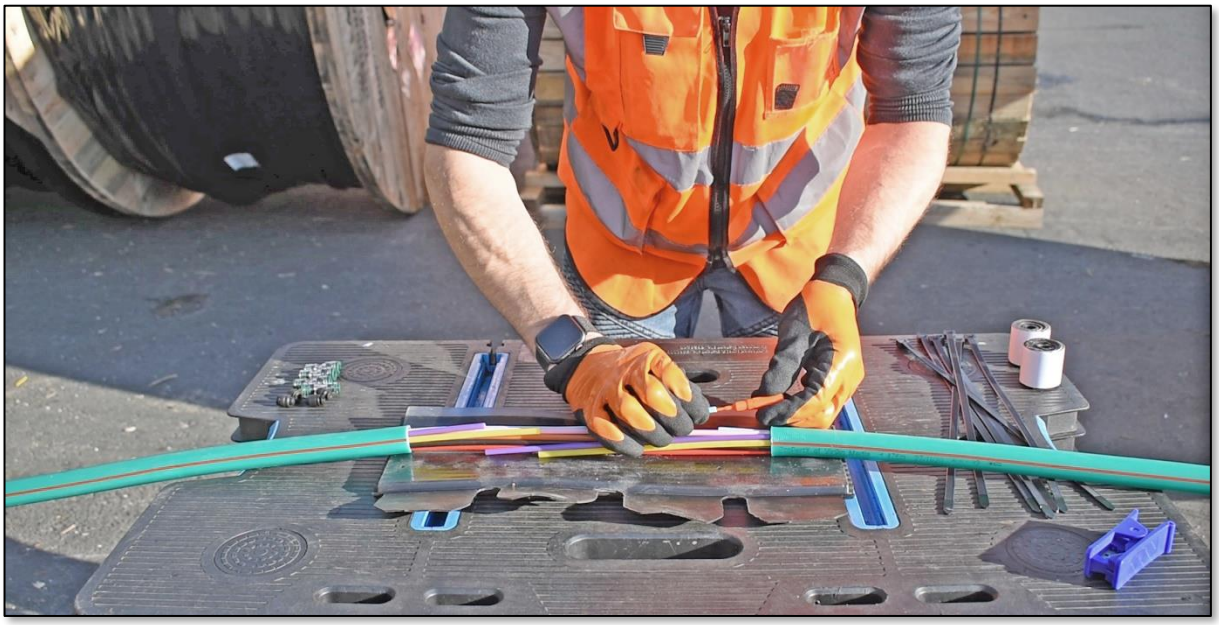
Fully remove the 300mm outer sheathing to expose the 5mm tubes within.

Step 6

Select the appropriate 5mm tube and use the tube cutter to make a cut. This should be at least 50mm from the end of the exposed tube. Any additional cuts should also be staggered at least 50mm to allow for space between the reducing couplers (to be added at a later stage).

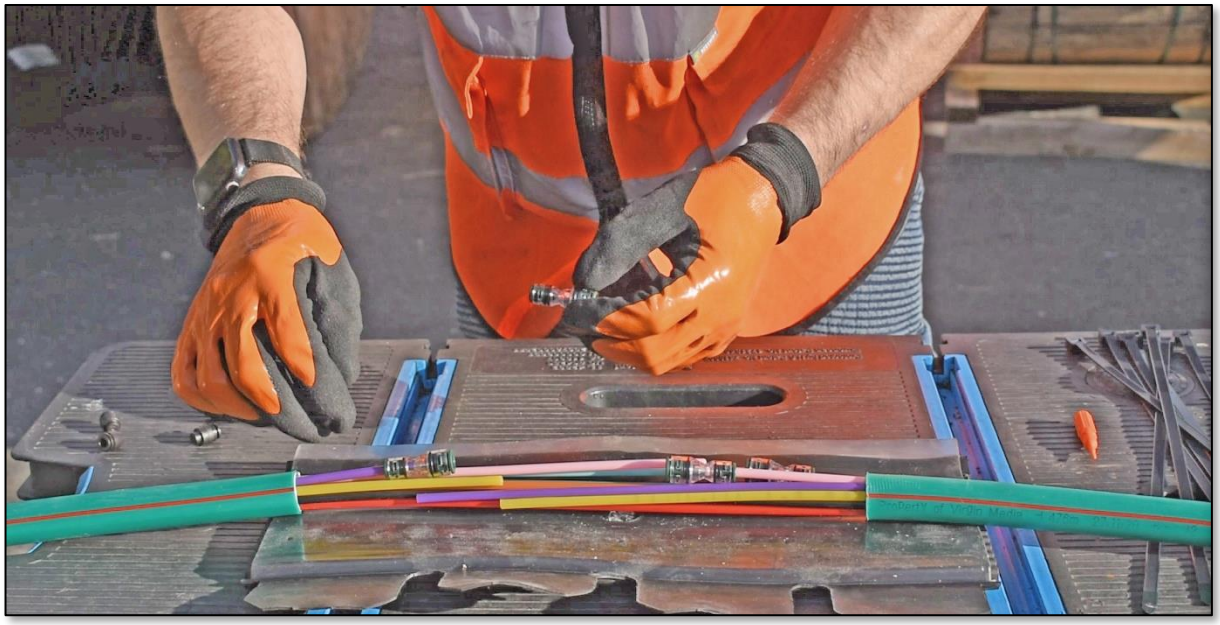
Step 7

After cutting each of the 5mm tubes, ensure the ID is round by inserting and rotating the rounding tool.



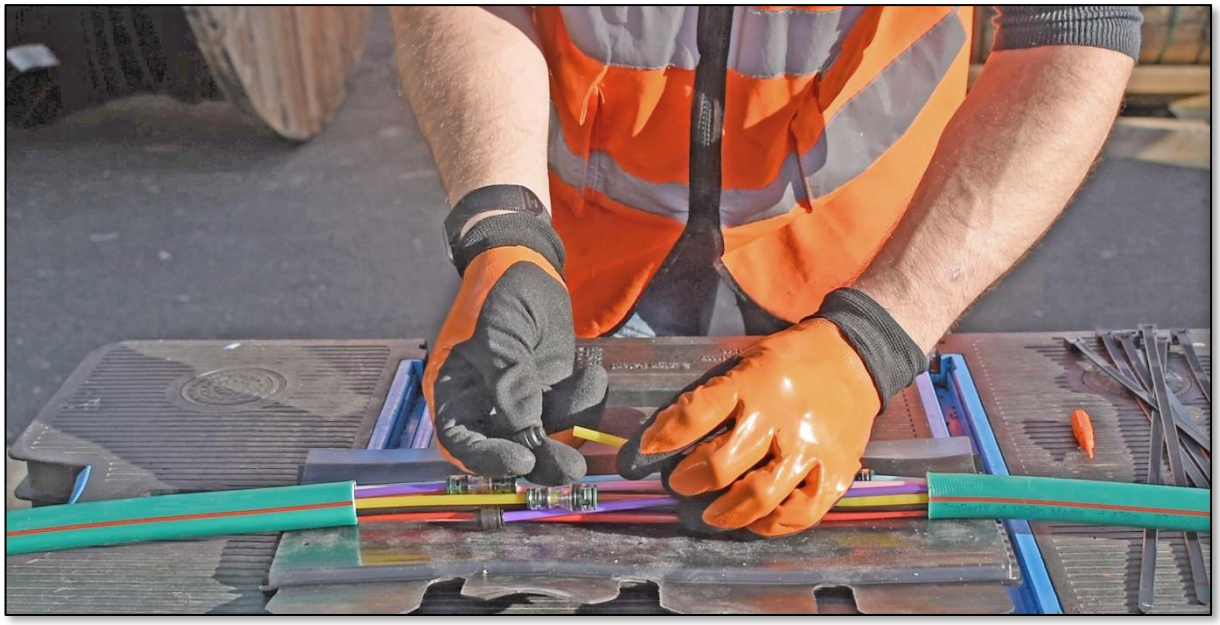
Step 8

Fit the 7-5mm reducing compression connectors to the 5mm tubes. If the tubes have been trimmed correctly (Step 6) there should be no overlap between adjacent connectors.



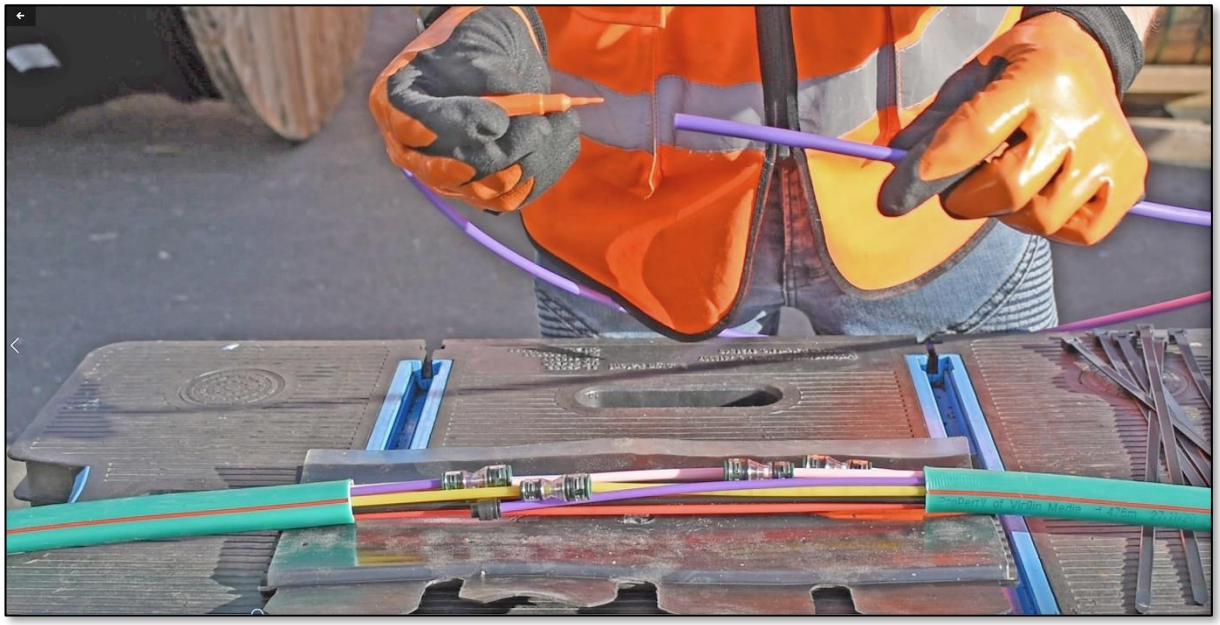
Step 9

Fit the 5mm compression end caps to the remaining open ends of tubes.



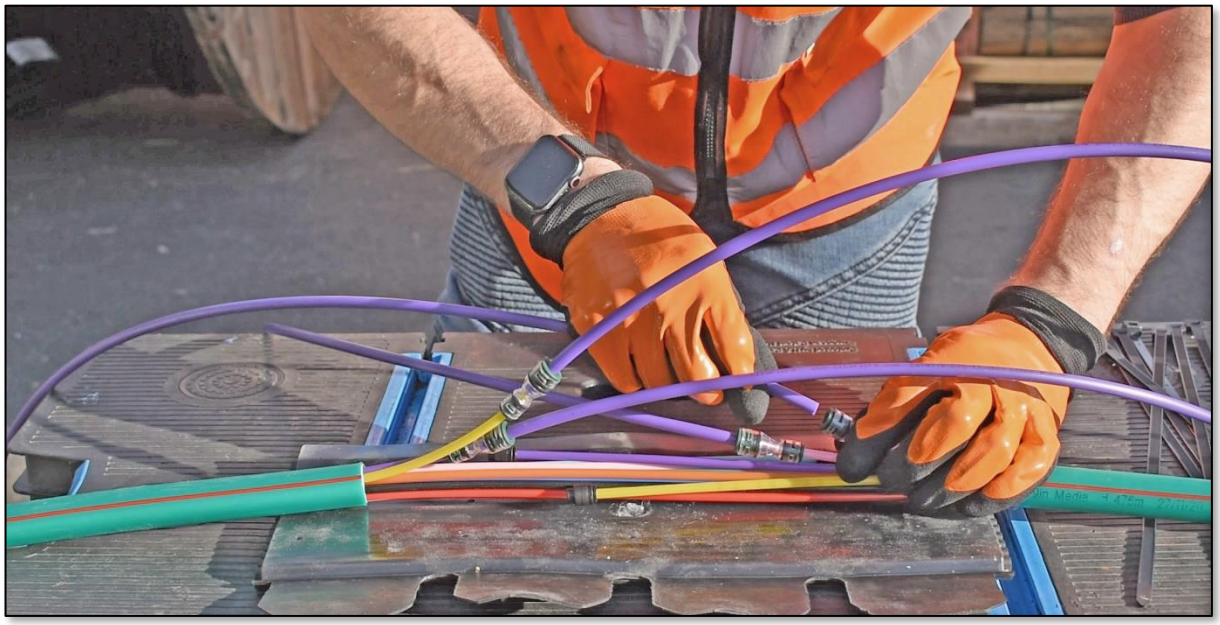
Step 10

On the 7mm tubes (to be connected) use the rounding tool to ensure the ID is round.



Step 11

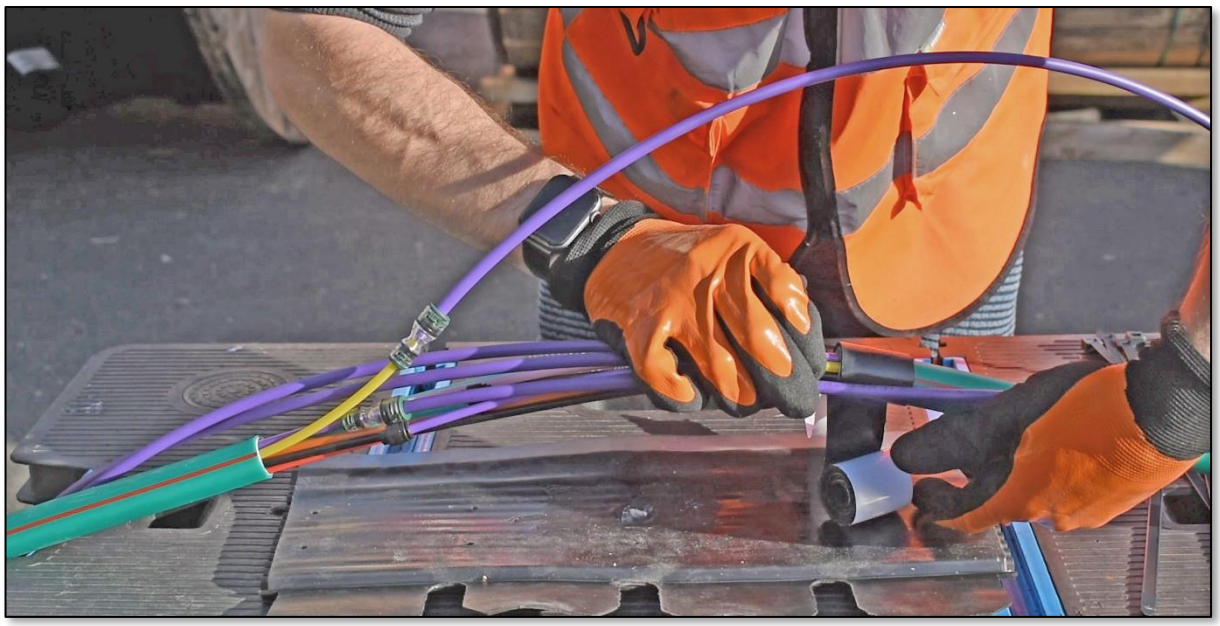
Connect the 7mm tubes to the other end of the 7-5mm reducing compression connectors.



Step 12

Gently apply amalgamating tape to the green outer duct sheathing. Do not apply pressure to the amalgamating tape at this stage. Use two full rotations around the tube bundle. Position the 7mm tubes 180 degrees apart over the 2 wraps of amalgamating tape. Continue to wrap the tape around the 7mm tubes and the tube bundle until the whole roll is used.

**Additional tape may be required for smaller products.*

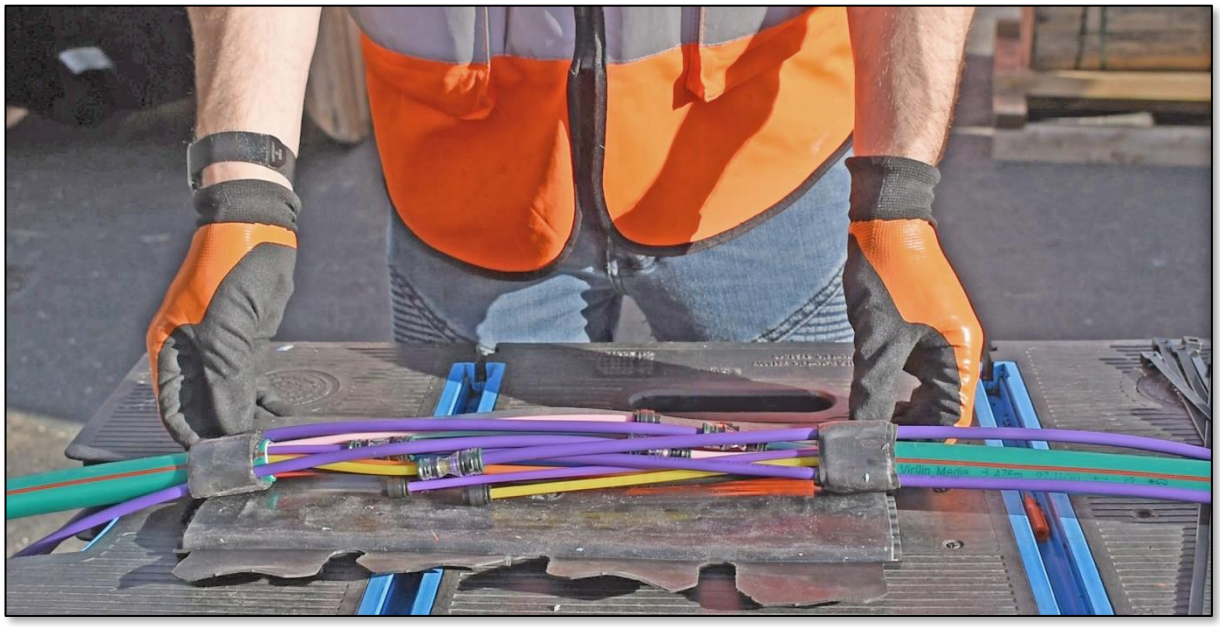


Step 13

Repeat step 12 at the opposite end of the exposed tubes.

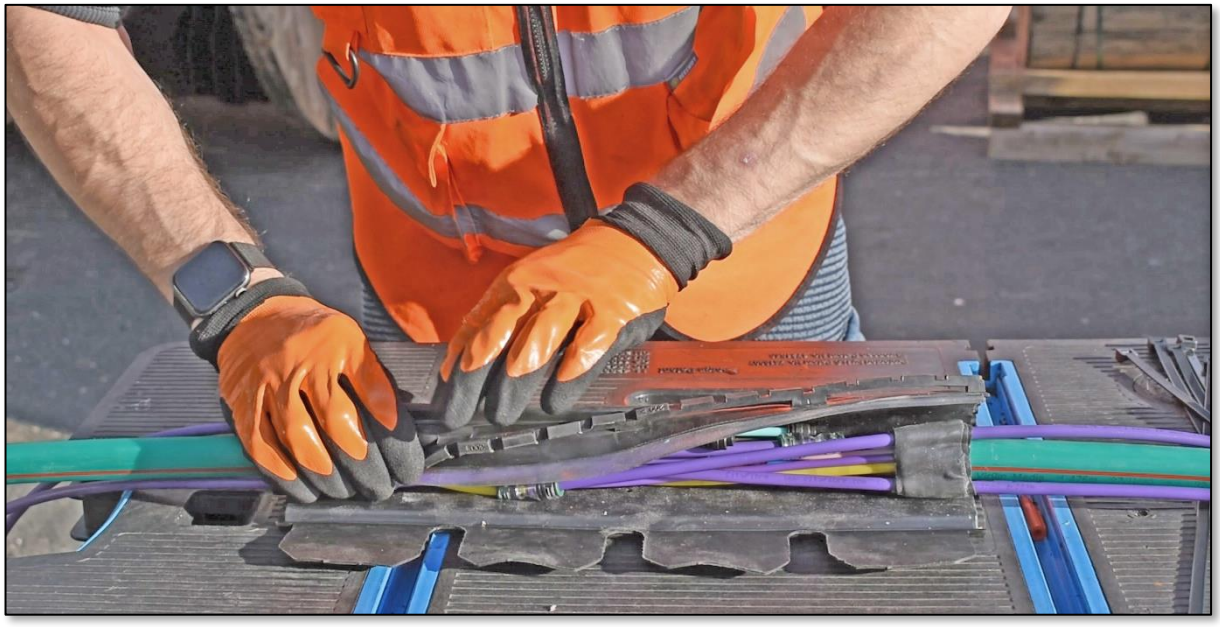
Step 14

Once tape has been applied to both ends the applied amalgamating tape should be gently squeezed to ensure it has bonded between the tube bundle and 7mm tubes. Align the EM-WRAP so that each end is in line with the amalgamating tape.



Step 15

Begin to wrap the EM-WRAP around the duct/tube assembly.



Step 16

For an effective seal it is important to ensure the leading edge of the EM-WRAP is fully tucked under the duct/tube assembly and should not be allowed to “double back” on itself.

Step 17

Pull each of the 4 tabs and secure them under the corresponding buckle as the EM-WRAP is closed around the duct/tube assembly. There are two notches on the buckle – where required, use the first notch to fully close the wrap. The taps can then be pulled tight onto the second notch.

Step 18

Each tab/buckle on the EM-WRAP has 3 cable tie locating slots. Start by applying the supplied cable ties to the slots at the far end of the EM-WRAP (over the section that covers the amalgamating tape).

Step 19

The first and last tab/buckle should receive 2no.cable ties each. The two central tab/buckles should receive 1no cable tie each, positioned in the central slot.

Step 20

Pull each cable tie ensuring it is tight and secure around the duct/tube assembly. Once secure the excess should be trimmed away from each cable tie to complete the EM-WRAP installation.