

for Long-Length Cable Repair

1.0 General Product Information

This instruction sheet provides information regarding the description and use of CommScope WRSS overlapping sheet for long-length cable repair. The WRSS overlapping sheet is a heat-resistant and shrinkable material, coated internally with hot-melt adhesive to provide a water and pressure-tight seal to the cable jacket.

The WRSS overlapping sheet is required to join two WRSS wraparound repair sleeves when the repair area exceeds the size of a full-length sleeve. The overlapping sheet can be used with WRSS wraparound repair sleeves on pressurized or unpressurized air-core or filled cables with lead or polyethylene sheath.

IMPORTANT: Two WRSS wraparound repair sleeve kits are required for use in conjunction with this overlapping sheet kit. They are not included with the overlapping sheet kit.

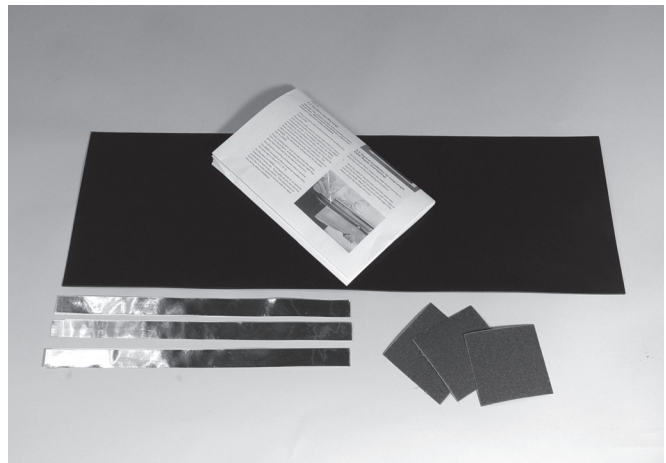
2.0 Cautions and Warnings

Warning: Use extreme caution when handling an open-flame torch. Observe torch manufacturer's and/or your company's approved safety procedures.

- Follow company-approved procedures for handling lead sheath cable.
- Pressurized cable must be vented with a PAF II or bled to zero pressure before and during application of the WRSS overlapping sheet. In the heated, soft state, the WRSS overlapping sheet adhesive will allow escaping air from the cable to form holes and tunnels under the overlapping sheet and defeat the purpose of the application. The cable may be repressurized when the entire installation is complete. This will provide sufficient time for the adhesive to solidify.
- Protect existing plant, such as poles and other cables, from the torch flame. A Raychem brand AD-1460 fiberglass heat shield pad may be used for protection.
- Use temporary bonding procedures where required.
- The WRSS overlapping sheet should be installed when the work area is above 0°F (-18°C).
- Do Not place the WRSS overlapping sheet on an opening suspected of being wet. Thoroughly dry any wet opening as directed by approved practice. Take precautions to ensure that no water comes in contact with the repair area during sleeve installation.

3.0 Kit Contents

- WRSS overlapping sheet: 24" long by 8" wide
- Installation instructions
- 3 Aluminum strips
- 3 Abrasive squares



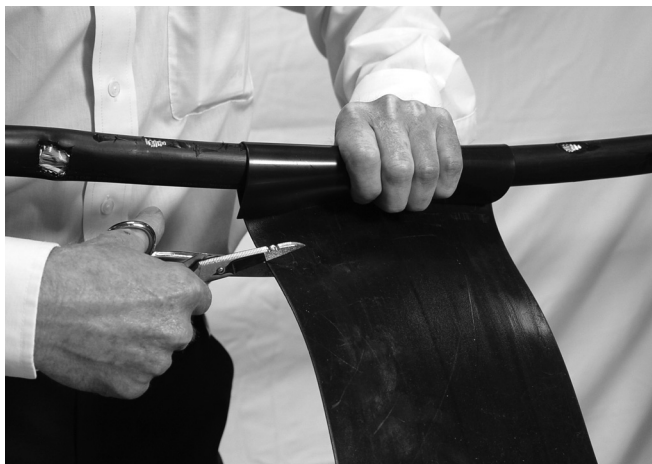
4.0 General Installation for Long-Length Cable Repair (overlapping)

For long-length repair, prepare the cable sheath openings as described and use the overlapping kit as follows:

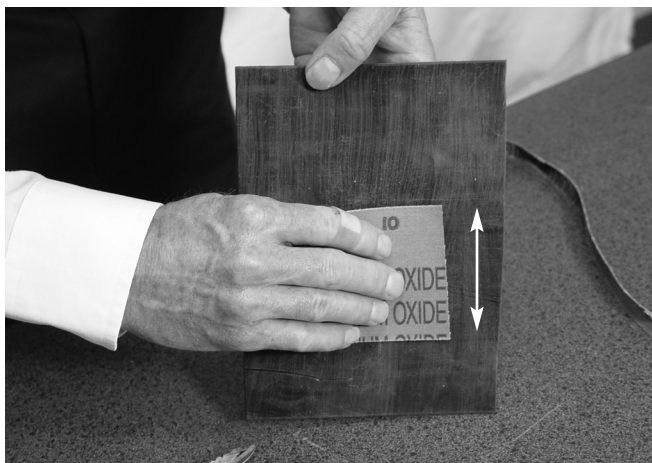
1. Mark the cable 6" beyond each end of the repair area. Hold the first sleeve over the repair area with one edge on one of the marks. Mark the area at the other edge of the sleeve where the overlap will occur.



2. Wrap the overlapping sheet 1-1/2 laps around the repair area at the mark and cut with snips. This will provide the proper length of the overlapping sheet.



3. Remove the overlapping sheet and wipe it clean. Abrade with the supplied abrasive square in the direction shown.



4. Wrap the glossy (adhesive) side of the overlapping sheet around the cable centered on the mark where the overlap will occur. Using the supplied strip of aluminum tape, tape around the center of the overlapping sheet to hold it in place. Smooth tape with a blunt object.



5. Clean and abrade 6" of the cable sheath inboard of the mark opposite the overlap.



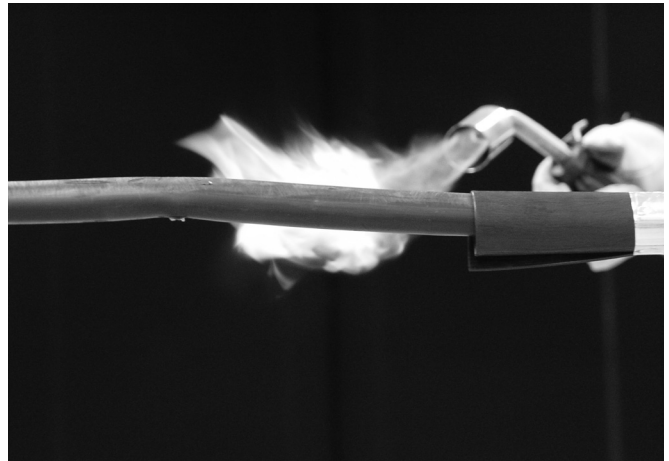
Wrap 4" aluminum tape around the cable one inch inboard of the mark.



Smooth tape with a blunt object.



6. Using an approved torch, flame-treat the polyethylene jacket and overlapping sheet where the WRSS sleeve is to be installed.



7. Place the first WRSS sleeve so that one edge of the sleeve is centered on the aluminum tape of the overlapping sheet.



8. Assemble the WRSS sleeve with the rails 90° from the bond bar.



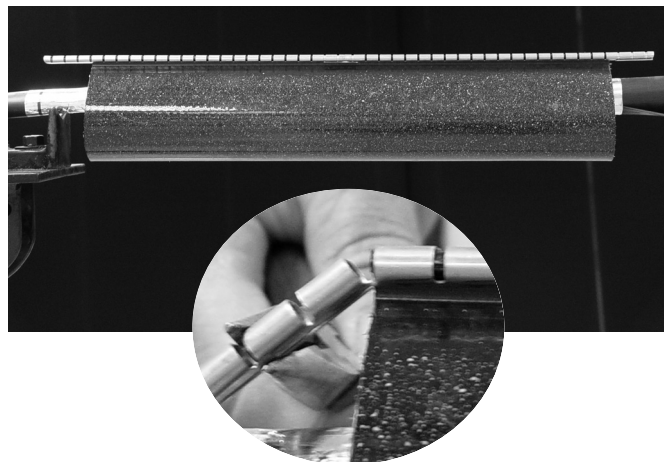
Join the rails together by first placing the retention clip over the rails at the center of the sleeve to hold the sleeve in place.



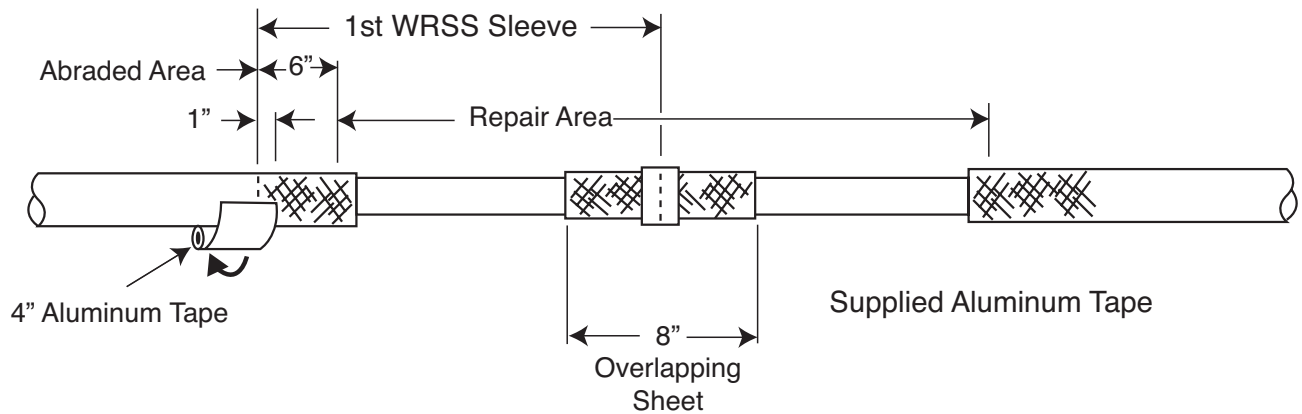
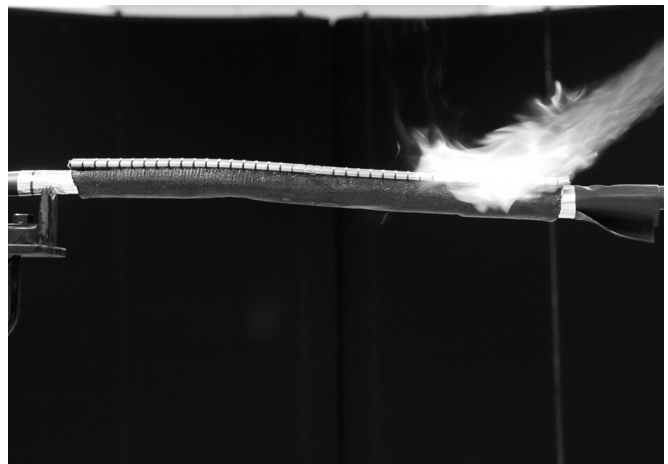
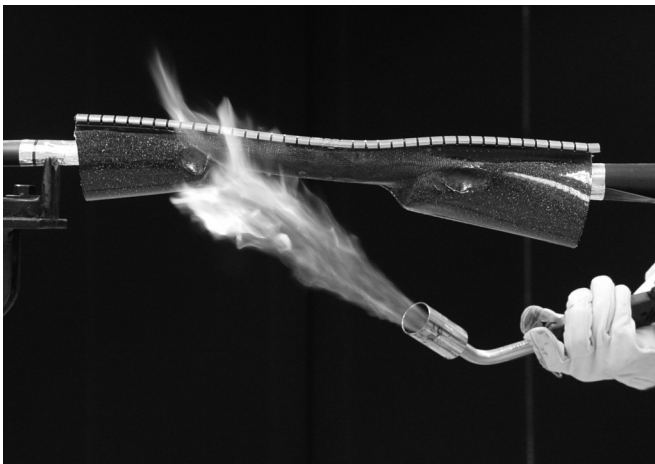
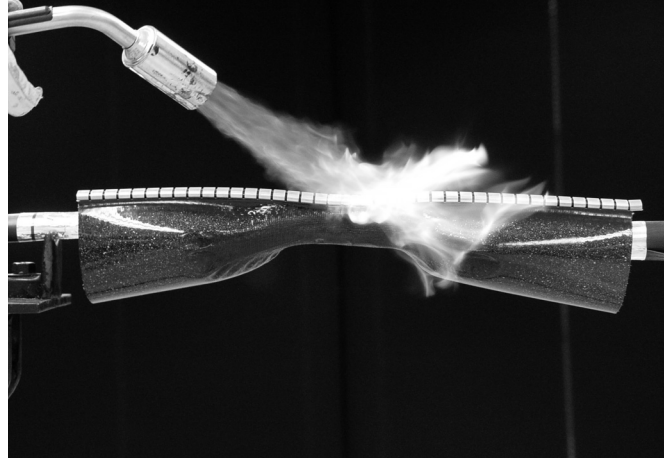
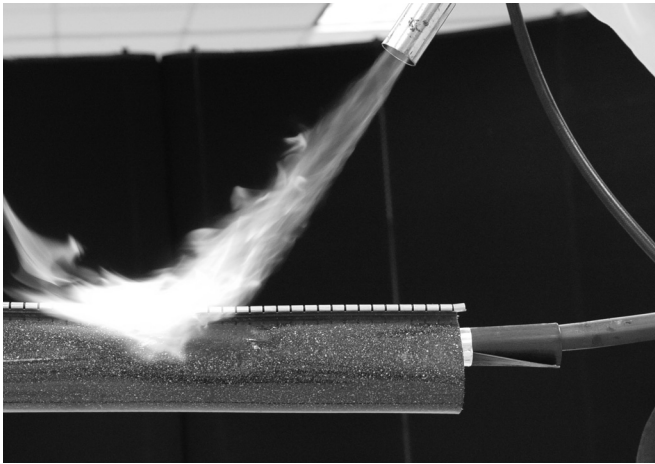
Slide the channels, one from each end of the sleeve, towards the center and over the retention clip.



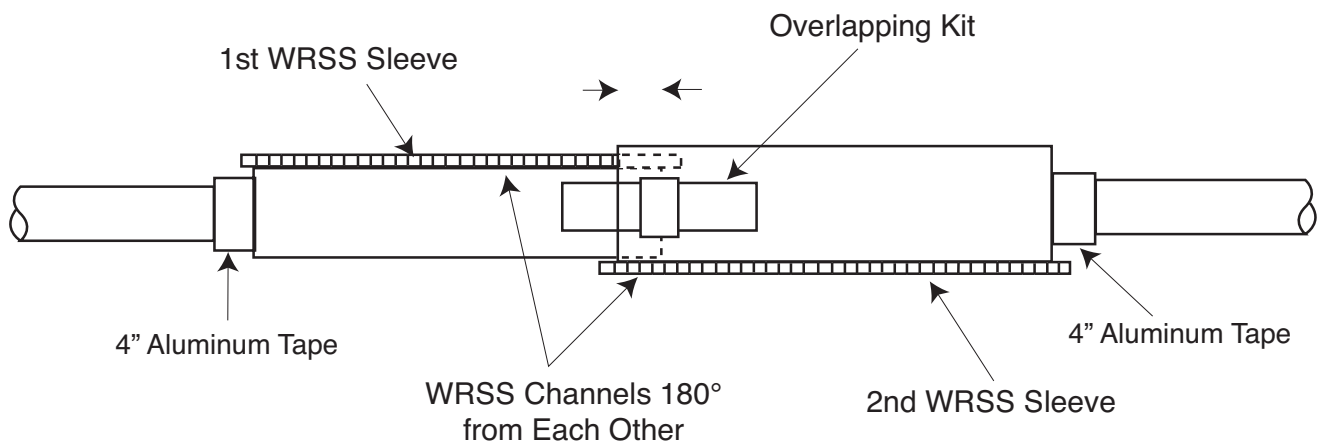
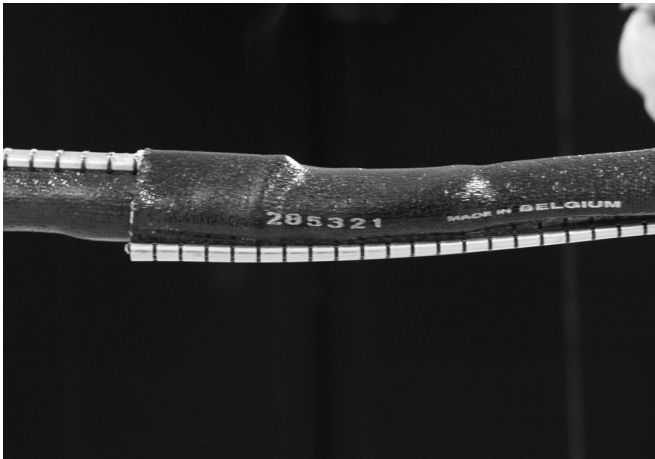
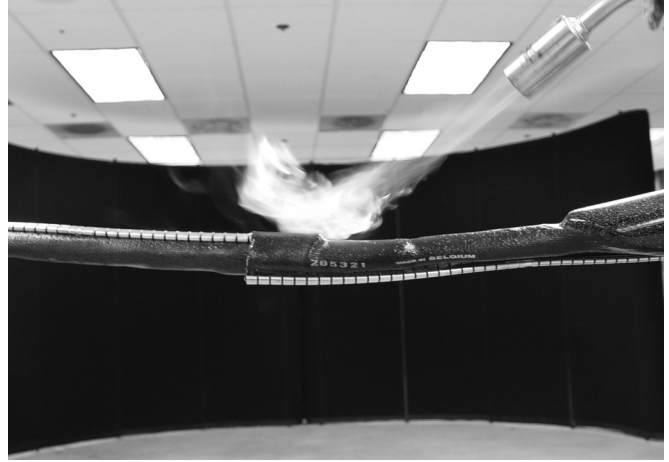
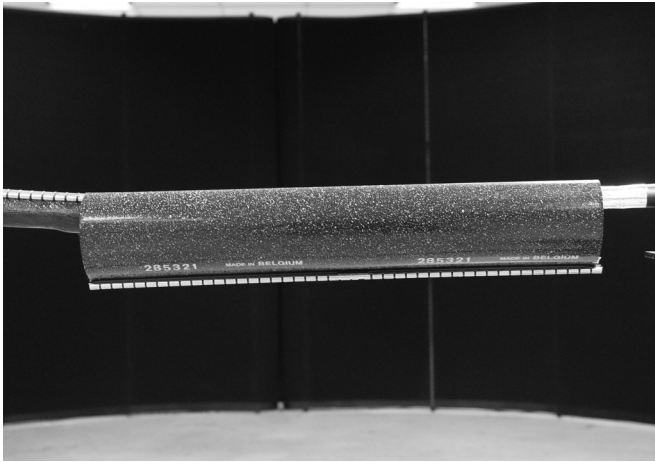
A minimum of 1/2" of channel should extend beyond the edge of the sleeve. Snap off excess channel with pliers.



9. Observing proper safety precautions, preheat the rail and channel area. Start at the center of the sleeve and work out toward the ends, completely shrinking the sleeve as you move. However, if conditions such as obstructions or wind prevent this method, start shrinking at one end of the sleeve and work towards the other.



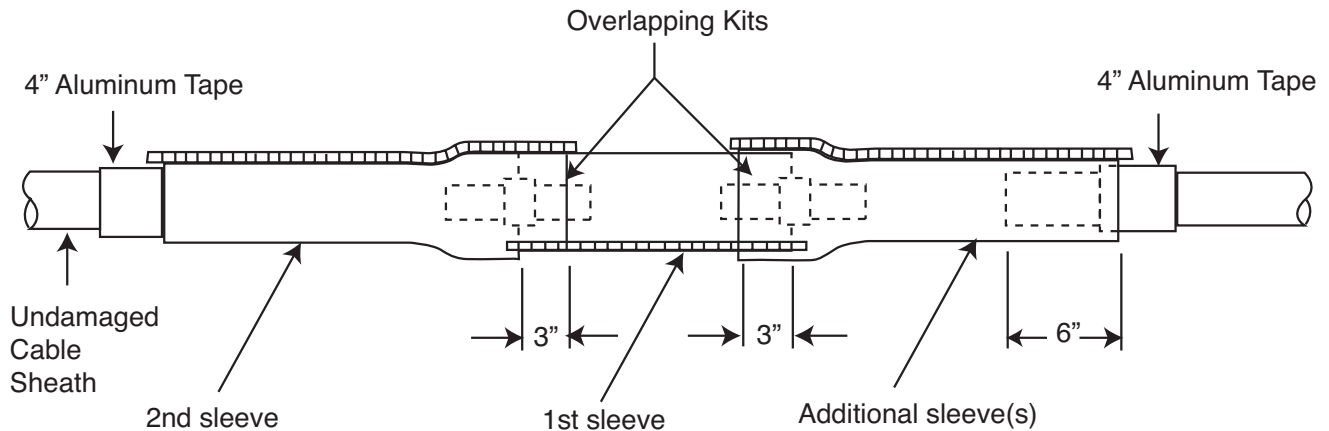
10. Apply the second WRSS sleeve over the remaining cable opening and the recovered WRSS sleeve as follows:
- (a) Place the rail/channel 180° from the first sleeve's rail/channel.
 - (b) Overlap the first WRSS sleeve by 3".
 - (c) Ignite the torch and shrink the sleeve per Step 9.



5.0 Multiple Sleeve Repair

If more than two WRSS sleeves are needed for repairs, apply additional overlapping kits to ensure total sealing of the damaged cable in the following sequence:

1. Place a WRSS sleeve over the damaged cable so the sleeve covers 6" of undamaged sheath. Mark the cable at both edges of the sleeve.
2. In this step only, place the first overlap sheet on the damaged side, 3" inboard of the mark. Install overlap sheet as indicated in steps 2 – 4 of section 4.0.
3. Place a WRSS sleeve over the installed overlap sheet so the sleeve edge is centered over the aluminum strip. Mark the cable at the sleeve edge on the opposite side of sleeve on the damaged sheath. Install overlap sheet as indicated in steps 2 – 4 of section 4.0.
4. Prepare the overlap sheet as indicated in steps 5 – 6 of section 4.0.
5. To recover, center a WRSS sleeve over the two installed overlap sheets. Using an approved torch, recover the first WRSS sleeve as indicated in step 9 of section 4.0.
6. Prepare undamaged cable sheath by cleaning, abrading, and flame treating as indicated in steps 5 – 6 of section 4.0. Place 4" aluminum tape, positioned 1" inside the sleeve, on undamaged cable. Position second WRSS sleeve so rail/channel are 180° from first recovered sleeve is overlapped 3", and 6" of undamaged sheath is covered. Recover as indicated in step 9 of section 4.0.
7. Working again in the damaged area, place a WRSS sleeve over the first recovered sleeve covering it by 3". Mark the cable at opposite side. Place an overlap sheet as indicated in steps 2 – 4 of section 4.0.
8. Prepare cable and recover the sleeve as indicated in step 6 above. Continue placement of WRSS sleeves until all damaged cable sheath has been restored and sleeves extend onto 6" of undamaged cable.



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