

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G50.679.7
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AT&T Co Standard

CABLE SPLICING — GENERAL

WRAPPED JOINT — AUXILIARY SLEEVE

STALPETH SHEATH

Contents	Page
1. General	1
2. Auxiliary Sleeves	2
3. End Plates and Wedges	2
4. Wrapping Auxiliary Sleeve	2
5. Beating-In and Wiping	7

1. GENERAL

1.01 This section replaces Issue 1 and describes the method of placing the auxiliary sleeve and making a wrapped, gastight, straight joint between the outer end of the auxiliary sleeve and the sheath at splices in stalpeth sheath cable. The method of completing the splice is included.

1.02 This section has been reissued to include a wiped fillet joint between the auxiliary sleeve and the terne plate. **The outer wrappings of the joint have been changed for aerial use.** The outer wrapping for underground or buried use is covered in another section of the Practices.

1.03 The auxiliary sleeve method should be used when:

- (a) The outside diameter of the main sleeve is more than one inch greater than the outside diameter of the cable.
- (b) At Y splices.
- (c) When position of splice makes it necessary to construct the splice before the cable is in its permanent position.

1.04 In other instances use the main sleeve method covered in another section of the Practices.

1.05 This joint is suitable on cables to be maintained under continuous pressure. The final wrapping for cables under continuous pressure is covered in another section of the Practices.

2. AUXILIARY SLEEVES

2.01 The auxiliary and main sleeves should preferably be placed and all the tape wrappings except the final wrapping made on the stalpeth sheath cable before the conductors are spliced.

2.02 The auxiliary sleeve should be at least 6 inches long and the next size larger in diameter than the cable. Where the splice is to be supported on racks in a cable vault or man-hole, make the auxiliary sleeves long enough to properly support the splice and keep the tape wrappings off the cable hooks.

2.03 Remove the identification ridges from the auxiliary sleeves to avoid the possibility of leaks in the wrappings at this point.

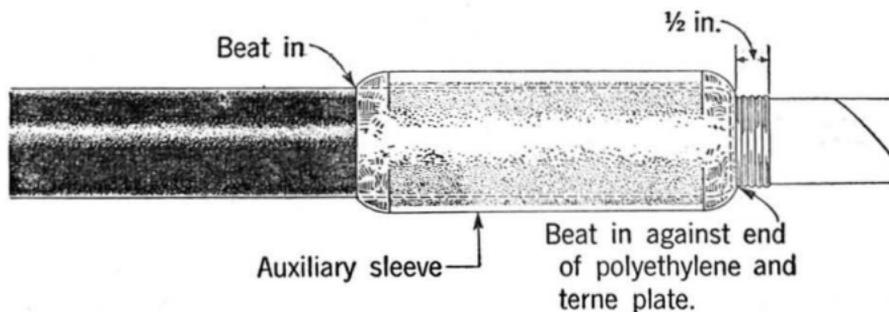
2.04 If a split sleeve is used, it should be beveled $1/2$ its thickness. Wrap the polyethylene under the sleeve with muslin to prevent damage to the plastic while soldering the sleeve.

3. END PLATES AND WEDGES

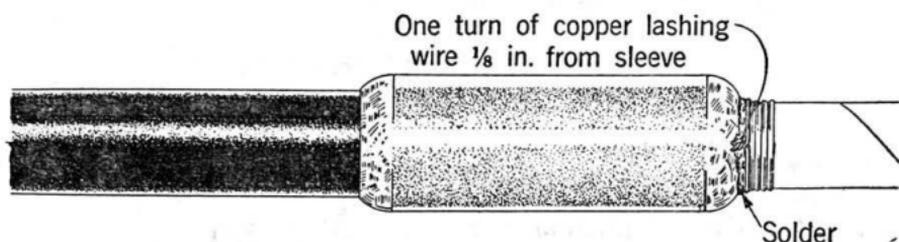
3.01 If end plates or wedges are used, the **diameter over the auxiliary sleeve** shall be used to determine the size of the core plug or wedge.

4. WRAPPING AUXILIARY SLEEVE

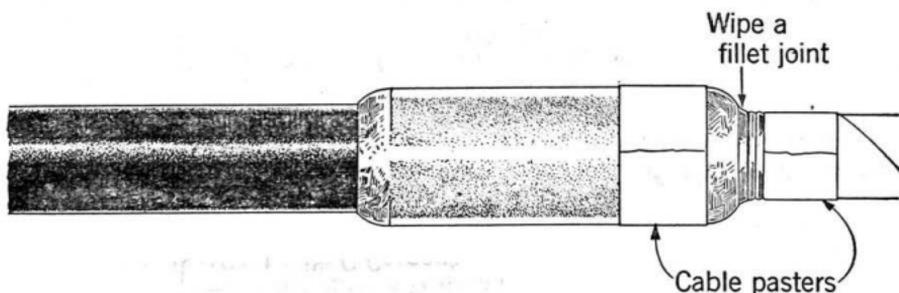
4.01 Position the auxiliary sleeve over the cable sheath and beat in the inside end against the end of the polyethylene and over the exposed terne plate. Take care not to damage the terne plate or the underlying aluminum. Beat in the other end of the auxiliary sleeve on the polyethylene.



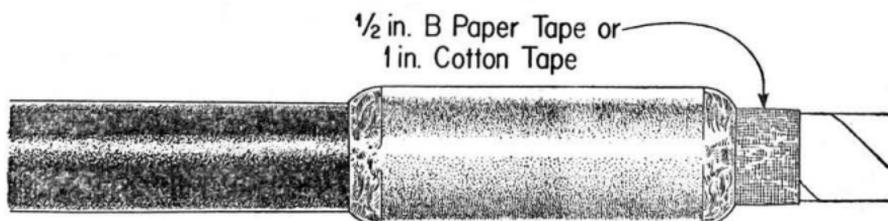
4.02 Place one turn of copper lashing wire around the cleaned terne plate close to the beat-in end of the sleeve. To maintain electrical continuity and mechanical strength across the splice, solder the sleeve to the terne plate with stearine core solder, encircling the sleeve as far as practicable, filling the space between the lashing wire and the lead sleeve.



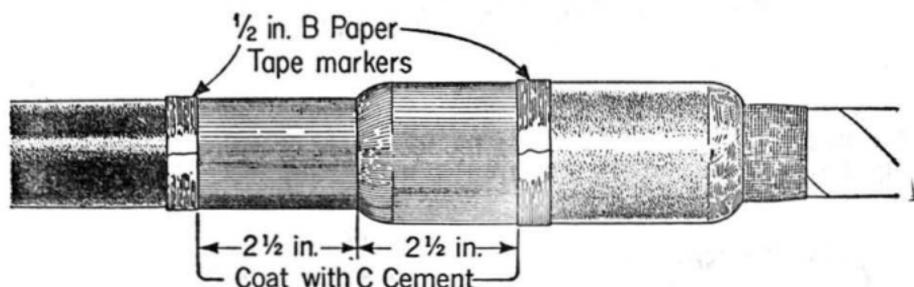
4.03 A wiped joint may be used between the terne plate and the auxiliary sleeve in place of the soldered joint in Paragraph 4.02. Apply the cable pasters, then wipe a fillet joint and remove the pasters.



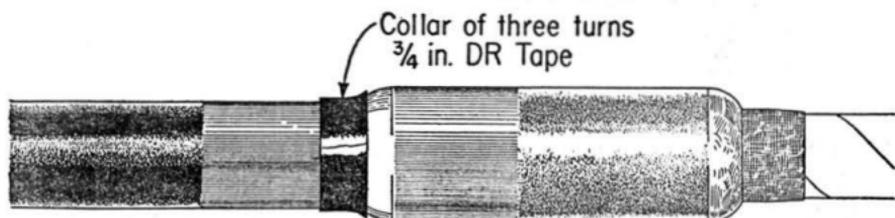
4.04 Wrap the butt with a half-lapped layer of 1/2-inch B Paper Tape or with two turns of 1-inch cotton tape and carry the tape over the terne plate up to the edge of the sleeve.



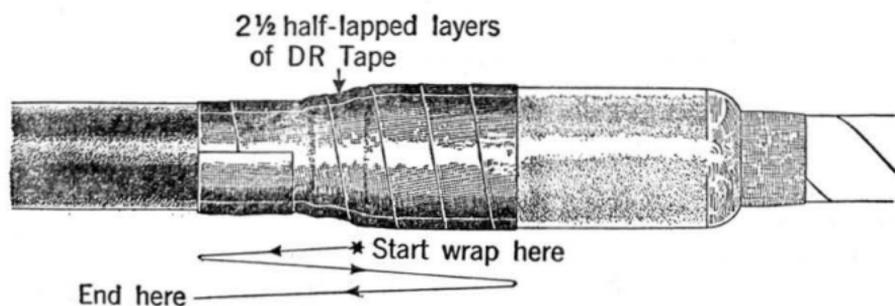
4.05 Clean the sleeve and scuff the sheath to a uniformly dull surface with the carding brush. Place B Paper Tape markers on the sheath and sleeve, and coat the enclosed area with C Cement. Remove the paper tape markers. Allow 3 to 5 minutes drying time in warm weather, 5 to 10 minutes in cold weather.



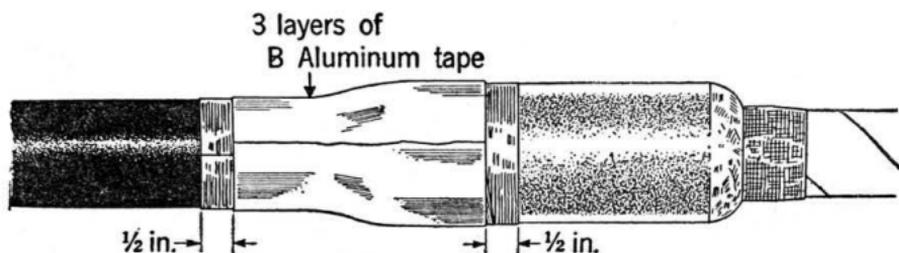
4.06 Build up the area at the junction of the sheath and sleeve with DR Tape stretched to reduce its width to 1/2 inch.



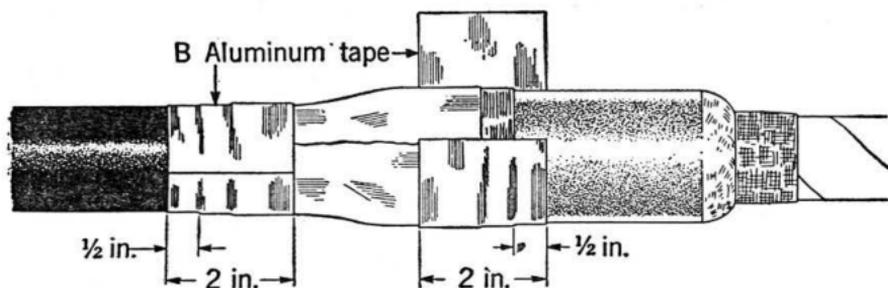
4.07 Apply DR Tape over the cemented area and the 3/4-inch tape. In applying the tape, it should be stretched to reduce its width to 1-1/2 inches. (This is a means of specifying the correct tension in the DR Tape.)



4.08 Apply a collar of three turns of B Aluminum Tape centered on the DR Tape. Iron smoothly in place with the handle of the dresser or the carding brush.

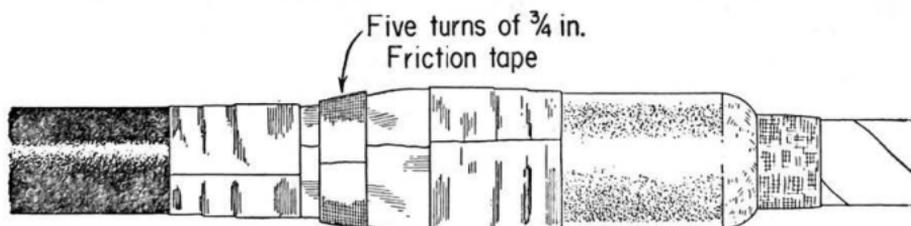


4.09 Apply a 1-1/4 turn wrapping of 2-inch wide B Aluminum Tape at each end, extending beyond the exposed DR Tape 1/2 inch. Then iron the 2-inch widths in place smoothly.



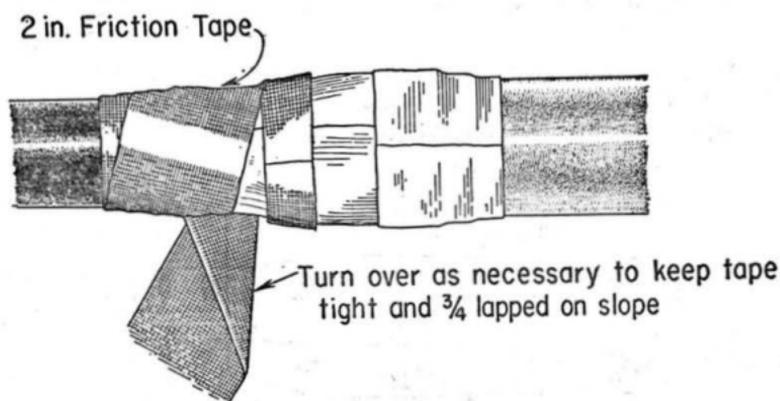
4.10 **The outer wrappings provided in the following paragraphs are for use on aerial cable.** The outer wrappings for underground plant are covered in another section of the Practices.

4.11 At the point directly over the three turn collar of DR Tape placed in Paragraph 4.06, place a tight collar of friction tape.

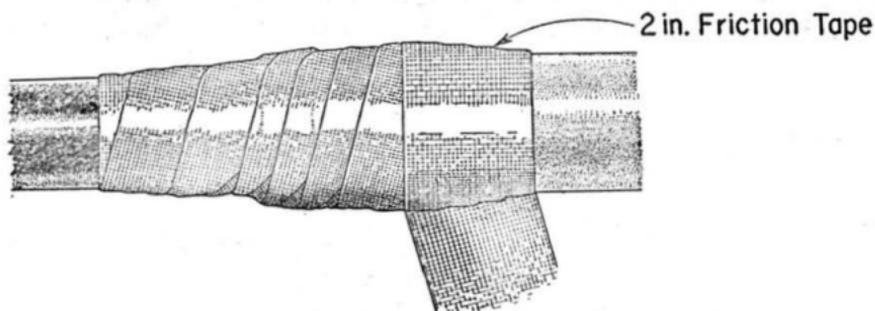


4.12 In the following Paragraphs 4.13 to 4.15, inclusive, 2-inch friction tape is illustrated. However, on cables of one inch and less in diameter, 3/4-inch friction tape is used instead of 2-inch friction tape, and applied in the same manner.

4.13 Starting on the sheath just beyond the end of the B Aluminum Tape, apply a half-lapped layer of 2-inch friction tape toward the center of the aluminum tape. As the slope of the sleeve is reached turn the friction tape over as necessary to keep the tape tight and increase the overlap to three-quarters on the slope.

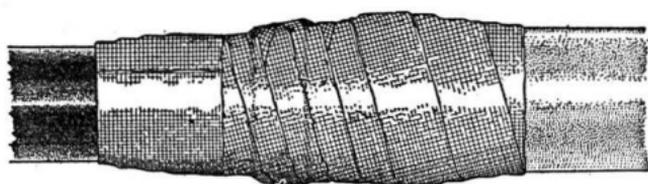


4.14 Continue the friction tape wrappings just beyond the end of the aluminum tape on the auxiliary sleeve.



4.15 Finish with a second half-lapped layer of friction tape starting on the sleeve and wrapping in the reverse direction.

← Wrap in reverse direction

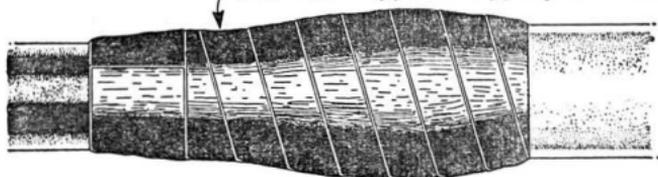


2 in. Friction Tape

4.16 Tear off the core wrapper before commencing to splice.

4.17 After wiping the joints and when they have cooled to atmospheric temperature, finish with a half-lapped layer of D Vinyl Tape applied over the friction tape. This black vinyl plastic tape has good outdoor weathering characteristics. Starting on the sleeve just beyond the edge of the friction tape apply it under slight tension. The last turn should extend just beyond the edge of the friction tape on the cable. **The last turn should be laid on free from all tension so that the end of the tape will not start to curl back.**

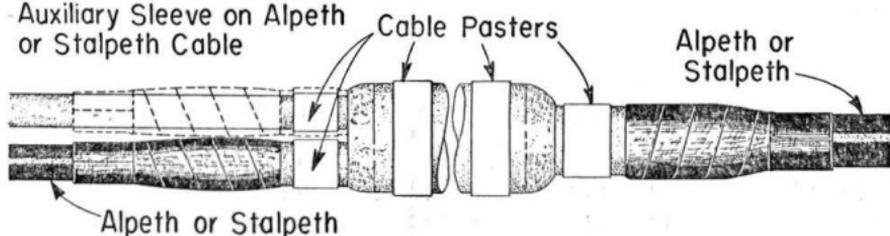
One half-lapped wrapping of D Vinyl Tape



5. BEATING-IN AND WIPING

5.01 On completion of the wire work, wrap the splice; then beat in the main sleeve on the auxiliary sleeves, apply the cable pasters, and wipe the joints.

Lead Sheath Cable or
Auxiliary Sleeve on Alpth
or Stalpeth Cable



G50.679.7

Page 7
7 Pages

CABLE SPLICING—GENERAL
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