CAPPING CABLE ENDS

E PLASTIC CAPS AND B ENCAPSULANT

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1. GENERAL

1.01 This section describes the general method of capping lead- or polyethylene-sheathed, plastic-, paper-, or pulp-insulated cable using B Encapsulant and E Plastic Caps. The bare ends of all conductors are insulated in one operation instead of each conductor being individually cleared and sleeved. In PIC cable the cap is gastight. The method is intended mainly for capping PIC cable at 49-type terminals, deadends, etc. However the method can also be used on any kind of lead- or plastic-sheathed, paper- or pulp-insulated cable if the cable is not pressurized.

1.02 This section is reissued to provide an improved method of capping cable ends with E Plastic Caps and B Encapsulant.

2. MATERIALS

2.01 The following materials are required for capping the cable:

▶E PLASTIC CAP◀

2.02 ▶The E Plastic Cap is used with B Encapsulant to make a permanent cable end cap. The cap is black, cylindrical, and closed at one end. The inside surface of the end cap is treated with a special bonding agent to ensure obtaining a good bond between the cap and encapsulant. This bonding prevents water migration between the end cap and the encapsulant. ***Do not touch the inside surface of the end cap.*** E Plastic Cap sizes and quantities of B Encapsulant for capping cables with up to 3-inch od are given in Table A.◀

TABLE A

E PLASTIC CAP SIZE AND B ENCAPSULANT QUANTITY

CABLE DIAMETER (INCHES)	E PLASTIC CAP SIZE	B ENCAPSULANT BAGS (SEE NOTE)
up to 0.8	1.00	1
0.81 to 1.05	1.25	1
1.06 to 1.40	1.60	1
1.41 to 2.00	2.20	1
2.01 to 2.65	2.85	2
2.66 and up	3.75	3

Note: Actual quantity to be poured into cap will vary with cable diameters. Judge fill so encapsulant will be within approximately one inch of top of cap after cable is inserted.

▶B ENCAPSULANT◀

2.03 ▶B Encapsulant is a nonexpanding polyurethane compound enclosed in a two-part plastic bag. The bag contains 180 grams.◀

2.04 ▶B Encapsulant has a gel time of approximately 15 minutes at 70°F and 30 minutes at 60°F. To speed the gel time at lower temperatures, warm the encapsulant to about 60°F.◀

3. PRECAUTIONS

3.01 ▶B Encapsulant◀ contains chemicals to which some individuals are sensitive. Contact of the chemicals with the skin can cause an irritation or reaction similar to that resulting from contact with creosote. Every effort should be made to avoid direct contact of the skin.

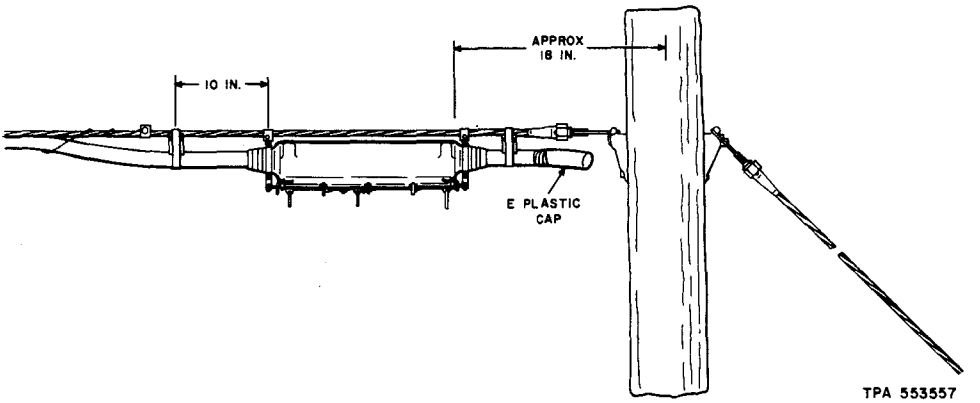

Fig. 1—Lashed Cable Capped at Deadend Pole

3.02 Before handling the encapsulant, "KERODEX"® protective cream should be applied to the hands. Good personal hygiene and good housekeeping methods are essential in protecting against the possibility of skin irritation. Waste cloths, paper towels, empty compound containers, etc, used during the capping operation should be set aside in a bag or box for disposal each day.

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4. LOCATION

4.01 ▶E Plastic Caps filled with B Encapsulant◀ can be used to cap aerial, underground, or buried cable.

4.02 ▶Strand-supported and self-supporting PIC cable should be cut and capped beyond the last distribution terminal location (Fig. 1 and 2). ***Premeasure the location and construct the cable cap in a vertical position prior to placing the terminal and supports.***◀

4.03 ▶Extension of the cable beyond the pole, as shown in Fig. 3 and 4, is ***not*** required unless the cable is to be extended.◀

5. INSTALLATION

PREPARING CABLE END

5.01 Prepare the cable end as follows:

(a) Cut the cable to the desired length and score the sheath completely around the cable 4 inches from the end. ▶Trim the web from self-supporting cables to obtain a smooth sheath.◀

(b) Remove sheath, shield if any, core wrapper, and group binders.

(c) Cut the conductors no more than 2 inches beyond the end of the sheath. Cut to different lengths (Fig. 5) to reduce the possibility of shorts or crosses. Use sharp shears, cutting a few pairs at a time to ensure squarely cut ends.

(4) With a carding brush, thoroughly scuff the sheath for 4 inches from the end (Fig. 6).

(5) ▶Apply a coating of C Cement to the scuffed area (Fig. 7). This will prevent water migration between the cable sheath and the encapsulant.◀

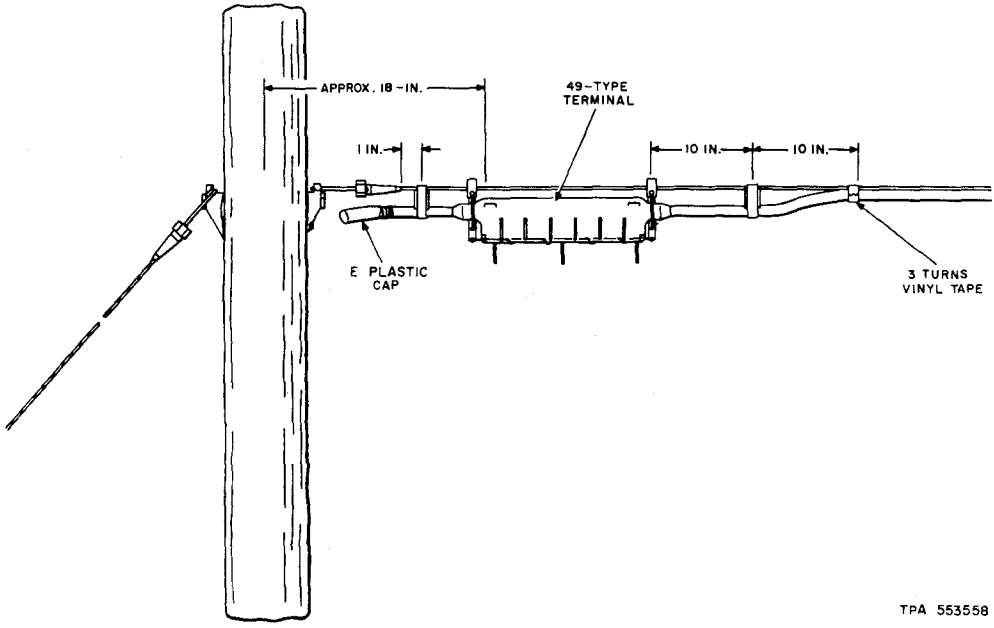

Fig. 2—Self-Supporting Cable Capped at Deadend Pole

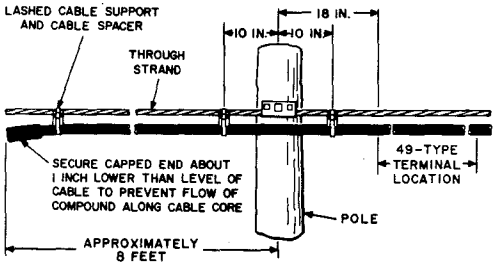

Fig. 3—Capped Cable on Through Strand—Cable to be Extended

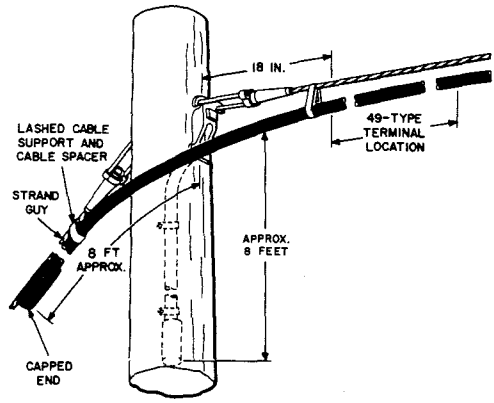

Fig. 4—Capped Cable on Strand Guy—Cable to be Extended

CAPPING CABLE

5.04 ◗Cap the cable as follows:

(a) Position the cable end vertically downward.◖

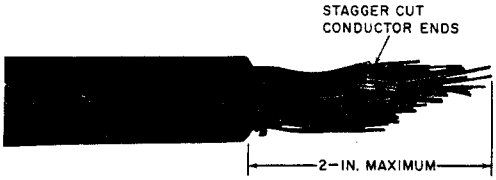

Fig. 5—Conductor Ends Cleared

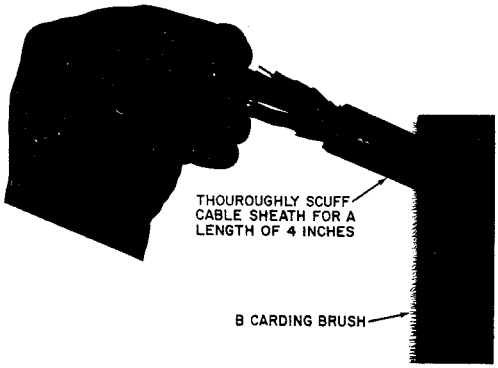

Fig. 6—Scuffing Sheath

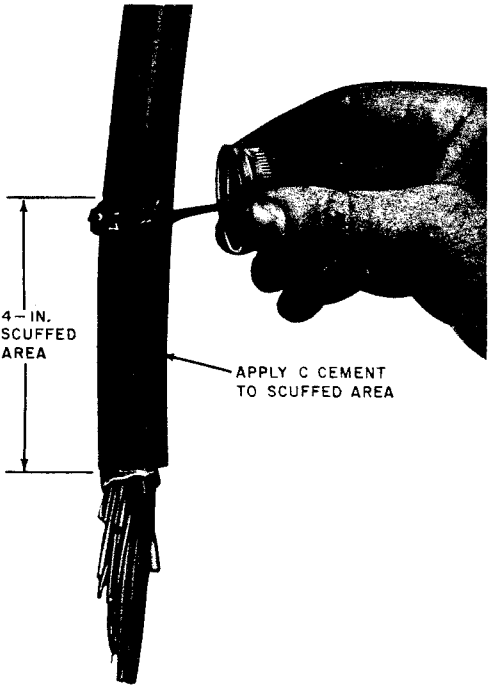

Fig. 7—Applying C Cement

(b) Mix the required amount of encapsulant (Table A) as follows:

- Break the dividing seal separating the two encapsulant components.
- Mix the components in the plastic bag by kneading thoroughly (Fig. 8).
- When the encapsulant is uniform in color (dark green) with no streaking it is ready to pour into the E Plastic Cap.

(c) Cut a diagonal opening across one corner of the plastic bag to form a pouring lip.

(d) Pour the encapsulant into the cap (Fig. 9). Estimate the amount of encapsulant required by referring to Table A and taking into consideration the difference between the cable outside diameter and the cap inside diameter.

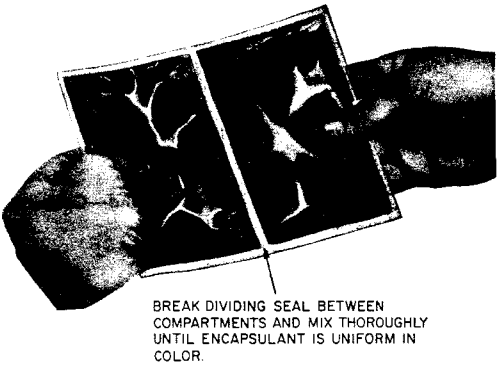

Fig. 8—Mixing Encapsulant

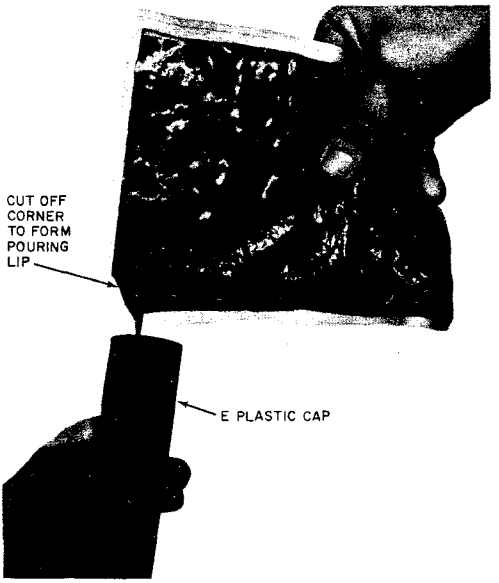

Fig. 9—Pouring Encapsulant

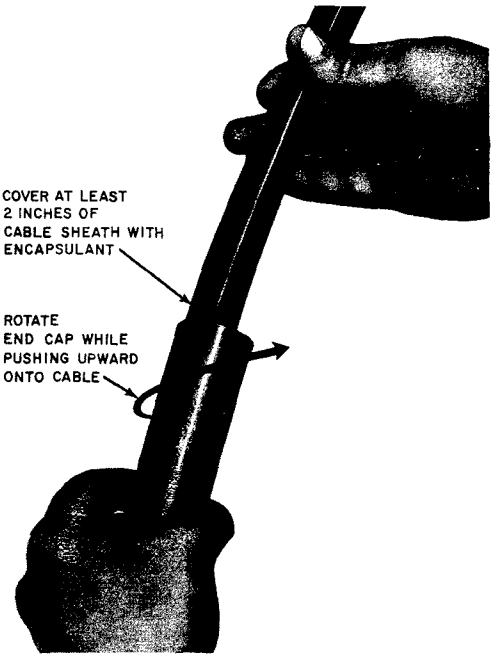

Fig. 10—Placing End Cap

(e) While rotating the cap slowly push it upward over the cable end (Fig. 10) until approximately two inches of cable sheath are immersed in the encapsulant.

(f) Hold the cap in this position until back pressure and air bubbles have dissipated.

(g) Move the lower end of the cap in a circular motion to dissipate any air bubbles in the encapsulant.

(h) Secure the E Plastic Cap to the sheath using four half-lapped layers of vinyl tape (Fig. 11). Start taping below the top of the cap, and continue over the cable sheath.

(i) A completed installation is shown in Fig. 12.

(j) Position and secure the cap as shown in Fig. 1, 2, 3, or 4, as appropriate.

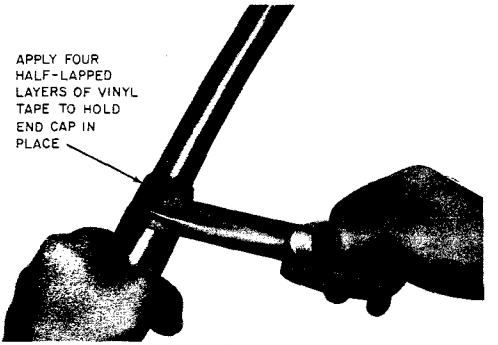

Fig. 11—Tapping End Cap in Place

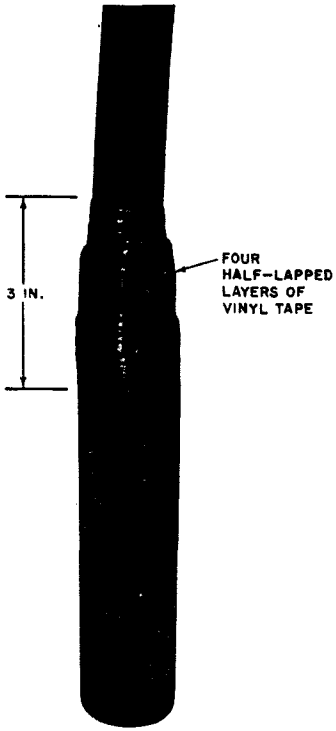

Fig. 12—Completed Installation