

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G73.151.3
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PRESSURE TESTING

GAS PLUGS—LEPETH SHEATH CABLES

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1. GENERAL

1.01 This section contains the same information as that previously contained in Section G50.670.4 which is hereby cancelled.

1.02 This section covers the method of constructing gas plugs in lepeth sheath cables containing paper-insulated conductors. It is not applicable to cables containing coaxials.

1.03 This section describes construction details which are special to lepeth cable. The other operations are the same as for asphalt filled plugs in plain lead sheath cable.

2. PREPARATION OF CABLE

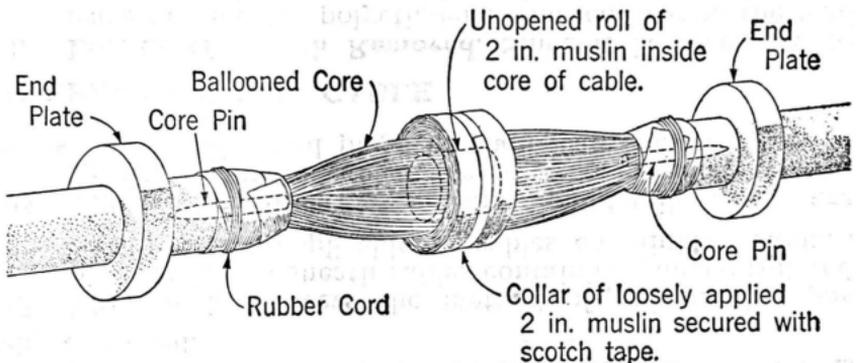
2.01 **Length of Sheath Removed.** Since it is necessary to leave one inch of polyethylene exposed beyond the lead sheath at each end of the opening, the length of the lead sheath removed should be 2 inches greater than usual.

2.02 **The Sheath Ends** should be prepared as described in Section G50.616.5.

2.03 **Core Pins.** In order to avoid damage to the polyethylene, no constriction rings are formed in the sheath of lepeth cable. To compensate for this, use wood core pins one size larger than usual.

2.04 **Ballooning and Wrapping Core.** When the core has been ballooned in the usual manner, an unopened roll of 2-inch wide muslin is placed in the center of the core at the midpoint of the opening, as illustrated below.

2.05 To attain the necessary dielectric strength from core to sleeve, the ballooned core is centered in the sleeve by means of a 2-inch wide muslin collar. This is made by loosely wrapping 2-inch muslin around the middle of the ballooned core. The collar should be built up to a diameter over which the sleeve can be placed conveniently.

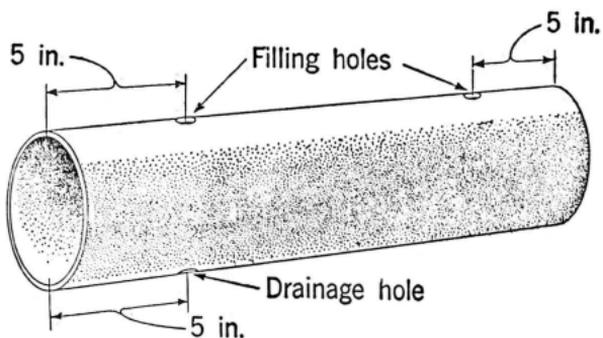


3. LEAD SLEEVE

3.01 **Length.** Since no constricting rings are made in the sheath, a lead sleeve 17 inches long can be used for all sizes of lepeh cable.

3.02 **Diameter.** Due to the change in the arrangement of the core of the cable, a sleeve $1/2$ inch larger in diameter than usual is required, except where 7-inch diameter is specified.

3.03 **Location of Filling Holes.** To avoid pouring the hot wax and asphalt directly on the taped ends and polyethylene, the filling holes should be located 5 inches in from each end of the sleeve as illustrated below. The drain hole should also be located 5 inches from one end of the sleeve, to make sure that the flow is not obstructed by the muslin wrapping around the splice.



Lead Sleeve - Length - 17 inches for all sizes of cable

3.04 **End Plate Wiped Joints** should be used and the sleeve should be supported with the B sleeve support in the usual manner during the wiping operation.

4. IMPREGNATING CORE AND FILLING SLEEVE

4.01 The core is impregnated with wax heated to a pot temperature of **300° F.** (325° F. at 32° F. air temperature.) During the 15-minute soaking period, the wax in the sleeve should be held within the range of 225° to 240° F. After draining the wax, the sleeve is filled with asphalt heated to a temperature of 200° to 220° F.

Caution: The use of higher wax or asphalt temperatures may damage the polyethylene.

4.02 In other respects the usual core impregnating and sleeve filling procedures should be followed.