

Tentative Specifications for

COMMUNICATION AND SIGNAL PIN-TYPE LIME-GLASS INSULATORS¹



A.S.T.M. Designation: D 879 - 46 T

ISSUED, 1946.²

These Tentative Specifications have been approved by the sponsoring committee and accepted by the Society in accordance with established procedures, for use pending adoption as standard. Suggestions for revisions should be addressed to the Society at 1916 Race St., Philadelphia 3, Pa.

Scope

1. These specifications cover pin-type lime-glass insulators for use in supporting conductors on open-wire communication and signal lines.

Material

2. The insulators shall be of lime glass of the grade generally accepted for communication and signal line work, of good quality and homogeneity. The glass used shall be transparent, and if not colorless shall be only slightly tinted. Insulators shall be manufactured and processed in a careful and workmanlike manner, in accordance with good design and commercial practice.

Thermal Shock

3. The glass insulators shall be capable of standing, without cracking, checking or chipping, hot-to-cold and cold-to-hot thermal shock tests as follows:

Hot-to-Cold Test.—The insulators

shall be immersed for 10 min. in a hot water bath (120 to 140 F.) and then transferred to a cold water bath and left therein for 10 min. The temperature difference between the hot and cold baths shall be 70 ± 2 F.

Cold-to-Hot Test.—The insulators, after having been subjected to the hot-to-cold test described above, shall be immersed in a cold water bath after 10 min., and then transferred to a hot water bath and left for 10 min. The temperature difference between the cold and hot baths shall be 100 ± 2 F.

Electrical Characteristics

4. The electrical characteristics of the material when measured at 1000 cycles per second in accordance with Section 13 shall be such that the dielectric constant will be not more than 7.9, and the product of the power factor and the dielectric constant will be not more than 0.28.

Dimensions and Permissible Variations

5. (a) *Design and Construction.*—Pin-type lime-glass insulators shall conform to the requirements for physical dimen-

¹ Under the standardization procedure of the Society, these specifications are under the jurisdiction of the A.S.T.M. Committee D-9 on Electrical Insulating Materials.

² Accepted by the Society at annual meeting, June, 1946.

Prior to their present publication as tentative, these specifications were published as Emergency Specifications ES-41 from 1944 to 1946, being revised in 1946 and issued as tentative.