

DRY TEST

The dry test is not required as an in-service test by OSHA. It is only required by the manufacturers on new sticks. It can offer the user additional information about the tools insulating properties which will not be revealed with the wet test. It is our recommendation that in-service sticks should have less than 15 micro Amperes when tested dry. This test cannot be substituted for the wet in service test which is required by OSHA.

TEST RESULTS

Any fiberglass tool not meeting the required leakage values should be removed from service and examined more thoroughly to determine the cause of the leakage and its suitability for service.

CLEANING/WAXING INSTRUCTIONS FOR HOT LINE TOOLS

Should any of the tools tested not meet the required leakage values of the Hastings Fiber Glass Hot Stick Tester, restoration to acceptable leakage values is possible by using the proper cleaning aids and cleaning products.

CAUTION: ONLY cleaning products designed specifically for Hot Sticks/Hot Line Tools should be used!

If your tool is deemed unacceptable by the preceding test, we recommend the following procedures:

1) Clean the fiberglass surface using Hastings Fiber Glass All Purpose Cleaner (catalog number 10-168, 10-169, 10-197) as shown on catalog pages H-2, H-1, and H-4.

NOTE: If contaminants appear to be imbedded in the fiberglass surface, use of the Hastings Fiber Glass Products Non-Abrasive Cleaning Pads (catalog number 10-170, as seen on page H-1) may be required in conjunction with the All-Purpose Cleaner.

2) After cleaning, make sure the surface is thoroughly dried.

NOTE: Do not use any treated shop cloths, or synthetic wiping cloths for drying!

3) After drying is complete, apply a coat of fiberglass wax. (Hastings Fiber Glass catalog number 10-091, as seen on catalog page H-2)

NOTE: The glossy surface may be retained by daily wiping with a silicone cloth. (Hastings Fiber Glass catalog number 10-090, as seen on catalog page H-3)

4) Retest your stick!

If the retested tool still does not meet acceptable leakage values, further measures must be taken. The tool must be refinished or discarded!

**Hastings Fiber
Glass Products
Hot Stick
Tester
Catalog No.
6799 & 6781**

WARNINGS

1) Do not use this tester until all instructions have been read and understood.

2) Do not try to test any equipment other than fiberglass hot sticks with this tester.

3) Do not touch the electrodes with your hand or any other foreign object.

4) Do not set tester on conductive surfaces when on.

Failure to observe these warnings and the following instructions could result in inaccurate readings or damage to the tester.

OPERATION

1) The stick to be tested should be supported by non-conductive supports.

2) The 6799 is a 110 volt unit and can be connected directly to a 110 volt outlet. The 6781 is a 240 volt unit that can be attached directly to a 240 volt outlet after attaching the proper plug to the cord.

3) Select either the "WET TEST" or "DRY TEST" position on the switch appropriate to the type of test you intend to perform.

4) Place the power switch in the "ON" position by momentarily moving it all the way forward to the "RESET" position. It will return to the "ON" position automatically.

5) Rotate the "ZERO" knob until the meter indicator is aligned with the zero position on the display.

6) If you are going to run the "DRY TEST" go to step 8.

7) Spray the entire stick with **DISTILLED** water to thoroughly wet the surface. Spray the water uniformly on the pole until droplets just begin to drip from the bottom surface.

8) Place the tester on any non-metallic portion of the stick to be tested and read the micro Amperes leakage on the meter.

9) To test the entire length of the stick, the tester must be moved in six inch increments along the length of the stick. During the wet test, it is important **not to slide** the tester along the stick. This will cause a wiping action on the water droplets resulting in abnormally high readings.

10) After the entire length of the stick has been tested, the stick should be rotated 180 degrees and re-tested. This will ensure that the most critical reading has been obtained.

11) The tester will sense any conductive object near the electrodes. Contact with the electrodes is not necessary for this to happen. If the operator were to place his hand on the outside of the tester below the meter, the reading will increase. Therefore all foreign objects should be kept away from the tester during use.

12) Should the tester sense an overload of current it will disconnect the high voltage source and the overload light will come on. The unit must then be switched "OFF" for two seconds then placed in the "RESET" position. It will

automatically return to the "ON" position.

13) To verify the tester is operating properly a check bar is supplied. Inserting the check bar in the tester should result in a full scale reading when the tester is set for the dry test and one eighth to one quarter scale when set for the wet test.

CALIBRATION

The meter is calibrated to indicate the leakage that would be present if 100 kV were applied to a 12 inch section of the tool for the dry test, and 75 kV per foot for the wet test. The actual distance between the electrodes is 6 inches which would make the leakage current twice as high as the 12 inch length. It will also cause the test to be slightly more severe as a smaller defect will be detectable.

The actual voltage is 2500 volts. This is 40 times less than 100 kV requirement for the dry test and 30 times less than the 75 kV requirement for the wet test. To make the tester correlate with the full scale values the actual leakage current is amplified 20 times for the dry test (40 x .5) and 15 times for the wet test (30 x .5).

WET TEST

Current industry standards require a stable or decreasing reading which would also eliminate flashovers. Our recommendation is that no readings over 75 micro Amperes are acceptable for the wet test. This is more stringent than the current industry standards and is well below the level where flashover or unstable readings will occur.