

Outside Plant: Connect with Confidence

September 2017

- Outside plant cables enable network managers to extend their networks to their outdoor environments without sacrificing performance.
- These cables are often subjected to extreme temperature, moisture and installation conditions.
- All of Berk-Tek's outside plant cables from Category 5e through Category 6A are third-party verified to ANSI/ICEA S-107-704-2012 for water penetration.



To achieve verification, a cable must pass an ANSI/ICEA test that simulates what would happen if water penetrates the cable jacket. A onemeter-long 1.5" PVC tube is filled with water, positioned upright, and attached at the bottom with an elbow joint to another PVC tube. A valve is installed to turn the flow of water on and off.

One meter of OSP cable under test is inserted into the bottom tube. The valve is opened, thereby allowing water to flow. To pass the test, the cable must withstand one meter of water pressure for one hour, with no water dripping from the end of the cable.

After all of Berk-Tek's OSP cables were verified by ANSI/ICEA, Berk-Tek replicated the test set-up in the TEK Center. Berk-Tek's accredited OSP cables withstood water exposure for much longer than the testing required (the cable was still dry when the test was dismantled after 10 days). We also tested two competetive indoor/outdoor products that claimed an OSP rating, but did not have the ANSI/ICEA S-107-704-2012 accreditation. One competitive sample lasted for 10 minutes before water was visible. The other lasted 14 minutes.



ANSI/ICEA Water Penetration Test

Application: Outside plant (OSP) cables

Challenge:

Cables installed in outdoor environments must be able to withstand a variety of harsh conditions, including wet locations. If water seeps into the cable, it can travel through the cable to the active equipment, potentially causing both safety hazards and expensive equipment malfunctions.

Solution:

All of Berk-Tek's outside plant cables, including our Category 6A LANmark-10G OSP and Category 6 LANmark-1000 OSP, are third-party verified to ANSI/ ICFA S-107-704-2012 for water penetration. In TEK Center testing, Berk-Tek OSP cables far exceeded requirements for verification, and outperformed competitive cables.

