



***Society of Cable  
Telecommunications  
Engineers***

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**ENGINEERING COMMITTEE  
Interface Practices Subcommittee**

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**AMERICAN NATIONAL STANDARD**

**ANSI/SCTE 10 2014**

**Test Method for Flexible Coaxial Cable Impact**

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## 1.0 SCOPE

This test is to establish that specified outdoor flexible RF coaxial drop cable jackets are capable of low temperature characteristics.

## 2.0 NORMATIVE REFERENCES

The following documents contain provisions, which, through reference in this text, constitute provisions of the standard. At the time of Subcommittee approval, the editions indicated were valid. All standards are subject to revision; and while parties to any agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents may not be compatible with the referenced version.

### 2.1 SCTE References

ANSI/SCTE 74 2011, Specification for Braided 75Ω Flexible RF Coaxial Drop Cable

## 3.0 COMPLIANCE NOTATION

“SHALL”	This word or the adjective “REQUIRED” means that the item is an absolute requirement of this specification.
“SHALL NOT”	This phrase means that the item is an absolute prohibition of this specification.
“SHOULD”	This word or the adjective “RECOMMENDED” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighed before choosing a different course.
“SHOULD NOT”	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
“MAY”	This word or the adjective “OPTIONAL” means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.

## 4.0 EQUIPMENT

- 4.1 Environmental chamber with top port hole – Having the interior chamber size with a vertical dimension of at least four (4) feet (1.22 meters), capable of maintaining temperatures  $-15\text{ }^{\circ}\text{C}$  for PVC or  $-30\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$  degree for PE for a 24 hour period.
- 4.2 Guide Tube – Metallic tube with a smooth inside diameter of approximately 1.25 inches (31.75 mm)  $\pm$  0.125 inches (3.17 mm) and an overall length of 39 inches (991 mm)  $\pm$  .50 inches (12.7 mm).
- 4.3 Weight – A cylinder of approximately 1 1/16 inches (2.7 cm)  $\pm$  1/32 inch (.79 mm) in diameter with a weight of one (1) pound (453.6 grams), having a flat striking face with 1/32 inch (.79 mm) beveled edge.
- 4.4 Impact Surface – A flat, smooth carbon steel plate with minimum dimensions of 4 in. x 4 in. x .25 in. thick (10.2 cm x 10.2 cm x 6.35 mm).
- 4.5 See Figure 1 – Test Fixture:

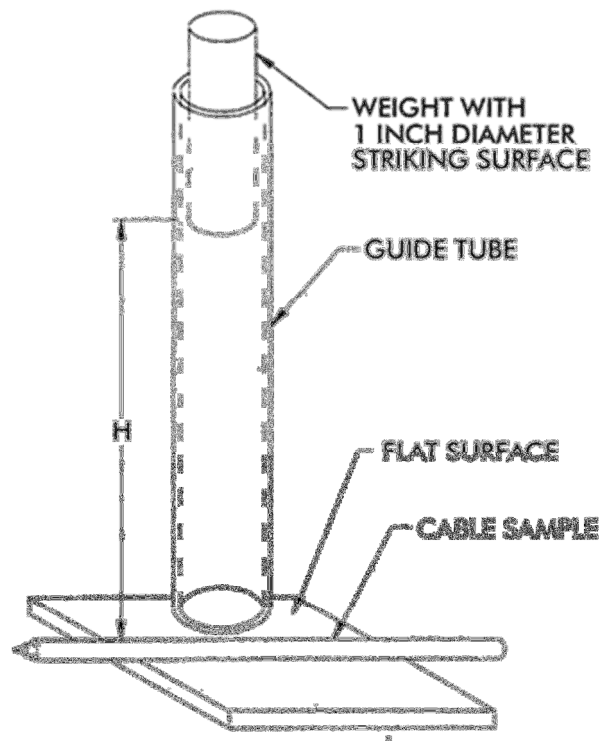


Figure 1 – Test Fixture<sup>1</sup>

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<sup>1</sup> H=36 inches equating to 3 foot pounds force on the conditioned sample.

## **5.0 TEST SAMPLES**

Five test samples of jacket cables of approximately 15 inches (38 cm) are required.

## **6.0 TEST METHOD**

- 6.1 Place the sample in the Cold Chamber and condition for 4 hours at  $-30^{\circ}\text{C} \pm 1\text{ C}$  degree ( $-22^{\circ}\text{F} \pm 1.8\text{ F}$  degree) for a polyethylene sample, and  $-15^{\circ}\text{C} \pm 1\text{ C}$  degree ( $5^{\circ}\text{F} \pm 1.8\text{ F}$  degree) for a PVC sample.
- 6.2 Condition the assembly, the weight and the impact surface in the environmental chamber for a minimum of 4 hours at the specified test temperature.
- 6.3 After the conditioning period, position the drop tube vertically over the impact surface with the test sample resting below on the impact surface.
- 6.4 Secure a test sample across the bottom of the drop tube. Two tests may be conducted on each sample by positioning the weight to strike between center and the end of the CUT.
- 6.5 Release the weight from the top of the tube, impacting the test sample at the bottom.
- 6.6 Test and inspect 10 impact areas.

## **7.0 INSEPCION**

The impact area is to be visually inspected. Failure of testing is a sign of a jacket crack or splits for the 10 impact tests visible to the unaided eye.

## **8.0 TEST RECORD**

Record a pass or fail indication, the size of cable, type of jacket tested and the test temperature used.