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ANSI/ICEA T-32-645-2012 (R2017)

Test Method for Establishing Volume Resistivity

Compatibility of Water Blocking Components With

Extruded Semiconducting Sheild Materials.

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Test Method For Establishing Volume Resistivity Compatibility of Water Blocking Components With Extruded Semiconducting Shield Materials

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Foreword

This test method for establishing volume resistivity compatibility of water blocking components with extruded semiconducting shield materials, T-32-645, was developed by the Insulated Cable Engineers Association, Inc (ICEA).

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Requests for interpretation of this publication must be submitted in writing to the Insulated Cable Engineers Association, Inc. P.O. Box 2694, Alpharetta, Georgia 30023. An official written interpretation will be provided. Suggestions for improvements gained in the use of this publication will be welcomed by the Association.

The members of the ICEA working group contributing to the revision of this publication consisted of the following:

P.M. Leblanc – Chairman

F. Clark	E. Bartolucci	R. Bristol
H. Soleski	J. Cancelosi	R. Fleming
C. Lindler	F. Kuchta	D. Farrick
R. Szilagyi	R. Thrash	E. Walcott
R. Williamson	W. Temple	B. Crawford
C. Spradlin	K. Nuckles	

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Section 1
GENERAL

1.1 SCOPE

This test method provides procedures for establishing volume resistivity compatibility of water blocking components with extruded semiconducting shields utilized in MV, HV or EHV power cables. The compatibility test is designed to verify that the electrical properties of a semiconducting material used as a conductor or insulation shield are not adversely affected when exposed to a water blocking component. These water blocking components can be incorporated in a conductor, over a conductor, over an insulation shield, or around a metallic shield or concentric neutral. It describes a test method of demonstrating that the volume resistivity and volume resistivity stability remain within their specified limits when a semiconducting material is exposed to a water blocking component at the emergency operating temperature of the cable.

1.2 GENERAL INFORMATION

Units in this Standard are expressed in the English system. For information purposes only, their approximate metric equivalents are included.

1.3 DEFINITIONS

Water Blocking Component: A non-metallic material incorporated in a cable construction intended as an impediment to water penetration. A water blocking component can be a pumpable or extrudable conductor filler compound, a water swellable tape, yarn, or powder, or a combination thereof.

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