



**ANSI/ICEA T-31-610-2018**

Test Method for Conducting Longitudinal Water  
Penetration Resistance Tests on Blocked Conductors

©2018 by INSULATED CABLE ENGINEERS ASSOCIATION, Inc.

## CONTENTS

	Page
<b>Foreword</b>	<b>ii</b>
<b>Section 1 GENERAL</b> .....	<b>1</b>
1.1 SCOPE .....	1
1.2 GENERAL INFORMATION .....	1
1.3 DEFINITIONS .....	1
<b>Section 2 TEST EQUIPMENT</b> .....	<b>2</b>
2.1 TEST ASSEMBLY .....	2
2.2 BENDING CONDITIONING.....	2
<b>Section 3 QUALIFICATION TEST PROCEDURES</b> .....	<b>3</b>
3.1 SAMPLES .....	3
3.1.1 Conductor Configuration.....	3
3.1.2 Insulation Type & Rated Voltage Classification .....	4
3.2 TEST PROCEDURE.....	4
3.2.1 Designs Employing Water Swellable Components (Tape, Yarn, or Powder).....	4
3.2.2 Designs Employing Pumpable or Extrudable Conductor Filler Compound with or without Water Swellable Components.....	4
3.2.3 Water Penetration Resistance Test.....	5
<b>Section 4 PRODUCTION TEST PROCEDURES</b> .....	<b>6</b>
4.1 SAMPLES.....	6
4.2 TEST PROCEDURE.....	6
<b>Section 5 APPENDICES</b> .....	<b>7</b>
APPENDIX A (Informative) TYPICAL TEST EQUIPMENT & SETUP .....	7