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Continuity of Coating Testing for Electrical Conductors

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Foreword

This Standard has been developed by the Polysulfide Task Force of the Aerospace Subcommittee (Members as listed below) of the High-Performance Wire and Cable Section of NEMA in close coordination between manufacturers, users, third party certifying agencies and others having specialized experience. The Aerospace Subcommittee of the High-Performance Wire and Cable Section of NEMA periodically reviews this Standard for any revisions necessary to keep it up to date. Proposed revisions or comments should be submitted to:

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Members of NEMA High Performance Wire and Cable Section that participated in the development of this Standard were:

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Barcel/CDT—Irvine, CA
BICC Brand-Rex Company—Willimantic, CT
Cable USA—Naples, FL
Judd Wire Inc.—Turner Falls, MA
Montrose/CDT—Auburn, MA
Phelps Dodge PHC— Lexington, SC
Quirk Wire—W. Brookfield, MA
Radix Wire—Cleveland, OH
Raychem Corp.—Menlo Park, CA
Rockbestos-Surprenant Corp.—Clinton, MA
Tensolite Company—St. Augustine, FL

Section 1
General

1.1 Scope

This Standards publication contains a review of the problems that have occurred when polysulfide testing has been improperly imposed on tin, silver and nickel coated copper and copper alloy *stranded* conductors or on tin, silver or nickel coated copper and copper alloy single or stranded conductors after insulating. The Sodium Polysulfide Test is a materials inspection test, not a finished wire or cable test, and should only be imposed on a single strand/conductor prior to stranding or insulating. A new test, called the "white card" continuity of coating test, is presented as a solution to these problems and can also be utilized on shield wires. This new test is referenced in ANSI/NEMA WC 67.