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American National Standard Electrical and Electronic Silicone and Silicone Braided Insulated, Hook-Up Wire, Types S (600 V), ZHS (600 V), SS (1000 V), ZHSS (1000 V), SSB Braided (1000V) and ZHSSB Braided (1000 V)

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Contents

Tables

Foreword

This Standard publication was developed by the NEMA High Performance Wire and Cable Section. It was developed to assure that these types of hook-up wire can be procured and that they will meet requirements associated with high reliability commercial electrical and electronic equipment in which it is used. Compliance with provisions of this Standards Publication is strictly voluntary, and any certification of compliance is left to the discretion of the buyer and seller.

In the preparation of this Standards publication, the input of users and other interested parties has been sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the High Performance Wire and Cable Product Section by contacting the:

NEMA Technical Operations Department
National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, Virginia 22209

This Standards publication was designed as a non-government Standard for the replacement of MIL-W-16878 Silicone Rubber Insulated Wire Slash Sheets (/7, /8, /29 through /32).

This Standards publication was developed by the NEMA High Performance Wire and Cable Section Aerospace Committee. Section approval of the Standard does not necessarily imply that all section Members voted for its approval or participated in its development. At the time it was approved, the section was composed of the following Members:

Name		Organization
Oscar	Castellanos	Cable USA LLC, a Marmon Wire & Cable, Berkshire Hathaway Company
David	Dexter	Champlain Cable Corporation
Rick	Antic	Champlain Cable Corporation
Richard	Trahan	Champlain Cable Corporation
Kevin	Coderre	Marmon Aerospace & Defense
Peter	Schlichting	Quirk Wire Company, Inc.
Ashley	Clark	Quirk Wire Company, Inc.
William	Thomas	SEA Wire and Cable, Inc.
Mike	Kearney	Specialty Cable Corporation
Jeff	Schroeder	Specialty Cable Corporation
Jonathan	Bauer	TE Connectivity
Cathy	Dutton	TE Connectivity
Robert	Moore	TE Connectivity / AD&M Wire and Cable
William	Crawford	The Okonite Company

Bruce	Sellers	The Okonite Company
Rush	Holladay	WireMasters, Inc.
Nathan	Christiansen	WireMasters, Inc.
Chris	Sayler	WireMasters, Inc.
Caleb	Thurman	WireMasters, Inc.

This Standard was processed and approved for submittal to ANSI by the NEMA C8 Committee on Insulated Wire and Cables, Excluding Magnet Wire. Committee approval of the Standard does not necessarily imply that all committee Members voted for its approval. At the time it approved this Standard, the C8 committee had the following Members:

First Name	Last Name	Organization
Kenneth	Bow	Kable Consult LLC
Lauri	Hiivala	Power Cable Consultant
Trung	Hiu	USDA Rural Development Utilities Programs
Michael	Kinard	Consultant
Anthony	Tassone	UL LLC
Todd	Taylor	Enfinity Engineering
Gerald	Dorna	Belden
Christel	Hunter	Cerrowire
Kevin	Porter	Encore Wire Corporation
Michael	Stover	Optical Cable Corporation
Henson	Toland	OFS Fitel
David	Watson	Southwire Company
Jared	Weitel	Prysmian Group
Lee	Perry	Service Wire Company
Nigel	Hampton	NEETRAC
Ewell	Robeson	Carolina Power & Light

Section 1
General

1.1 Scope

This Standard publication covers specific requirements for silicone rubber insulated stranded wire, designed for the internal wiring of high reliability electrical and electronic equipment. This Standard publication addresses 600 V (Type S, ZHS) and 1000 V (Type SS, ZHSS, SSB, and ZHSSB) wire and permits continuous conductor temperature ratings of −55ºC to +150ºC with tin-coated copper or −55ºC to +200ºC with silver-coated copper. These types of hook-up wire are used when the following requirements are called for:

a. High-temperature resistance
b. Low-temperature resistance
c. Good flexibility and flex life
d. Solder iron resistance for easier solder terminations without potential damage
e. Type ZHS, ZHSS, and ZHSSB are used for applications requiring low smoke and zero halogen requirements

1.2 Referenced Standards and Specifications

The following publications form a part of this document to the extent specified herein. The applicable issue of publications shall be the issue in effect on the date of the purchase order. In the event of a conflict between the text of this document and references cited herein, the text of this document takes precedence. However, nothing in this document supersedes applicable laws and regulations unless a specific exemption has been obtained.

American Society for Testing and Materials (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

B 286 *Copper Conductors for Use in Hook-up Wire for Electronics*

B 298 *Silver Coated Soft or Annealed Copper Wire*

D 3032 *Methods of Testing Hook-Up Wire Insulation*

B 3 *Soft or Annealed Copper Wire*

B 33 *Tinned Soft or Annealed Copper Wire*

American Society for Quality Control
611 E. Wisconsin Ave.
Milwaukee, WI 53202

ANSI/ASQC Z1.4 *Sampling Procedures and Tables for Inspection by Attributes*