AEROSPACE STANDARD

AS81824™ REV. E

Issued 1998-08
Reaffirmed 2009-04
Revised 2018-08

Superseding AS81824D

Splice, Electric, Crimp, Copper, Environment Resistant
FSC 5940

RATIONALE

Limited Scope revision is required to provide more consistent sealing of the crimped splices by providing wire stripping dimensions compatible with the sealing outer sleeve dimensions.

1. SCOPE

The AS81824 specification covers environment resistant, permanent crimp type, splices having heat shrinkable insulating sleeve and meltable environmental seals or heatless sealing sleeves. The splices may be used with tin, nickel, and silver-plated conductors in applications where the total temperature of the splice application does not exceed 200 °C or as specified in the detail specification.

1.1 The splice is designed to accommodate single and multiple wire combinations in one or more sealant openings. See detailed specifications for guidance.

2. REFERENCES

2.1 Applicable Documents

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

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS1424	Fluid, Aircraft Deicing/Anti-Icing, SAE Type 1
AMS-QQ-N-290	Nickel Plating (Electrodeposited)
AIR1351	Manufacturers' Identification of Aerospace Electrical and Electronic Wiring Devices and Accessories
AS7928	Terminals, Lug: Splices, Conductor: Crimp Style, Copper, General Specification For
AS22520	Crimping Tools, Wire Termination, General Specification for

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

SAE values your input. To provide feedback on this Technical Report, please visit
http://standards.sae.org/AS81824E

AS22759	Wire, Electrical, Fluoropolymer-Insulated, Copper or Copper Alloy
AS22759/11	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Silver-Coated Copper Conductor, 600 Volt
AS22759/12	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Nickel-Coated Copper Conductor, 600 Volt
AS23053	Insulation Sleeving, Electrical, Heat Shrinkable, General Specification For
AS50861	Wire, Electric, Polyvinyl Chloride Insulated, Copper or Copper Alloy
AS81044	Wire, Electrical, Crosslinked Polyalkene, Crosslinked Alkane-Imide Polymer, or Polyarlyene Insulated, Copper or Copper Alloy
*AS81824/1	Splice, Electric, Permanent, Crimp Style Copper, Insulated, Environment Resistant, Class 1
*AS81824/3	Splice, Coaxial Cable, Electric, Permanent, Crimp Style Copper, Insulated, Environment Resistant, Class 1
*AS81824/4	Splices, Electric, Permanent, Crimp Style, Copper, Insulated, Environment Resistant, Splice, Shield, Solder Type, Insulated, Class 1
*AS81824/5	Splices, Electric, Permanent, Crimp Style, Copper, Insulated, Environment Resistant, Kit, Shielded Cable, Class 1
* AS81824/6	Splice, Electric, Permanent, Crimp, Nickel Plated Insulated Wires, Environmental Class 1, 175 °C
* AS81824/7	Splice, In-Line, Electric, Crimp, SN/CU, Environmental, Heat-Shrinkable Sleeve, (150) °C, 1 x 3 Sealant Opening
* AS81824/8	Splice, In-Line, Electric, Crimp, NI/CU, Environmental, Heat-Shrinkable Sleeve, (175 °C), 1 x 3 Sealant Opening
* AS81824/9	Splice, In-Line, Electric, Crimp, SN/CU, Environmental, Heat-Shrinkable Sleeve (150 °C), 3 x 3 Sealant Opening
* AS81824/10	Splice, In-Line, Electric, Crimp, NI/CU, Environmental, Heat-Shrinkable Sleeve, (175 °C), 3 x 3 Sealant Opening
*AS81824/11	Splice, Electric, Permanent, Crimp Style, NI/CU, Insulated, Environment Resistant, Class 1, 200 °C Max, 1x1 Sealant Opening
*AS81824/12	Splice, Electric, Permanent, Crimp Style, Tin-Coated Copper, Insulated, Environment Resistant, Class 1, 150 °C, Heatless Sealing
*AS81824/13	Splice, Stub, Electric, Permanent, Crimp Style, Nickel/Copper, Insulated, Environment Resistant, 175 °C Max
*AS81824/14	Splice, Electric, Permanent, Crimp Style, Nickel-Coated Copper, Insulated, Environment Resistant, Class 1, 175 °C, Heatless Sealing

*AS81824 detail specifications

2.1.2 ASQ Publications

Available from American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203, Tel: 800-248-1946 (United States or Canada), 001-800-514-1564 (Mexico) or +1-414-272-8575 (all other locations), www.asq.org.

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

2.1.3 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM B1 Wire, Copper, Hard-Drawn

ASTM B75/B75M Tube, Seamless Copper

ASTM B152/B152M Copper Sheet, Strip, Plate, and Rolled Bar

ASTM B272 Copper Flat Products with Finished (Rolled or Drawn) Edges (Flat Wire and Strip)

ASTM B280 Tube, Copper, Seamless, for Air Conditioning and Refrigeration Field Service

ASTM B339 Pig Tin

ASTM B545 Tin, Electrodeposited Coatings of

ASTM D1974/D1974M Fiberboard Boxes, Methods of Closing, Sealing, and Reinforcing, Standard Practice for

ASTM D2671 Standard Test Methods for Heat-Shrinkable Tubing for Electrical Use

ASTM D5118/D5118M Standard Practice for Fabrication of Fiberboard Shipping Boxes

ASTM D5486/D5486M Standard Specification for Pressure-Sensitive Tape for Packaging, Box Closure, and Sealing

2.1.4 NCSL Publications

Available from NCSL International, 2995 Wilderness Place, Suite 107, Boulder, CO 80301, Tel: 303-440-3339, www.ncsli.org.

NCSL Z540-3 Requirements for the Calibration of Measuring and Test Equipment

2.1.5 U.S. Government Publications

Copies of these documents are available online at http://quicksearch.dla.mil.

A-A-3174 Plastic Sheet, Polyolefin

MIL-DTL-5624 Turbine Fuel, Aviation, Grades JP-4 and JP-5

MIL-DTL-81381 Wire, Electric, Polyimide-Insulated, Copper or Copper Alloy

MIL-DTL-83133 Turbine Fuel, Aviation, Kerosene Type, JP-8 (NATO F-34) and JP-8+100 (NATO F-37)

MIL-PRF-5606 Hydraulic Fluid, Petroleum Base, Aircraft, Missile and Ordnance

MIL-PRF-7808 Lubricating Oil, Aircraft Turbine Engine Synthetic Base

MIL-PRF-22191 Barrier Materials, Transparent, Flexible, Heat-Sealable

MIL-PRF-23699 Lubricating Oil, Aircraft Turbine Engines, Synthetic Base, NATO Code Number 0-156