



AEROSPACE STANDARD

AS22759™

REV. D

Issued 2001-07

Revised 2018-05

Superseding AS22759C

(R) Wire, Electrical, Fluoropolymer-Insulated, Copper or Copper Alloy

RATIONALE

Revision is required to update references, add a new Quality Conformance requirement for Fluoride Off-gassing test, add UV laser marking, and make minor technical changes as needed.

1. SCOPE

AS22759 specification covers fluoropolymer-insulated single conductor electrical wires made with tin-coated, silver-coated, or nickel-coated conductors of copper or copper alloy as specified in the applicable detail specification. The fluoropolymer insulation may be polytetrafluoroethylene (PTFE), fluorinated ethylene propylene (FEP), polyvinylidene fluoride (PVF₂), ethylene-tetrafluoroethylene copolymer (ETFE), or other Fluoropolymer resin. The fluoropolymer may be used alone or in combination with other insulation materials. These abbreviations shall be used herein. When a wire is referenced herein, it means an insulated conductor (see 7.7).

1.1 Part Numbers

Unless otherwise specified (see 3.1), part numbers are coded as in the following example (see 3.8 for details):

<u>M</u>	<u>22</u>	<u>9</u>	<u>0</u>	<u>1</u>	<u>2</u>	
						Third Stripe (Red, etc.)
						Second Stripe (Brown, etc.)
						First Stripe (Black, etc.)
						Insulation Color Designator (White, etc.)
						Wire Size (see 3.1)
						Applicable Detail Specification Designator (see 3.1)

1.2 Temperature Rating of Wire

The maximum conductor temperature of the wire for continuous use is specified in the detail specification (see 7.11).

1.3 Voltage Rating of Wire

The voltage rating of a wire for continuous use is specified in the detail specification (see 7.12).

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2. 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 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	Deicing/Anti-Icing Fluid, Aircraft, SAE Type I
AIR5717	Mitigating Wire Insulation Damage During Processing and Handling
ARP5607	Legibility of Print on Aerospace Wires and Cables
ARP6400	Recommended Practice for Processing and Handling Wire and Cable with Silver Plated Conductors and Shields
ARP9013	Statistical Product Acceptance Requirements
AS1241	Fire Resistant Phosphate Ester Hydraulic Fluid for Aircraft
AS4373	Test Methods for Insulated Electric Wire
AS4461	Assembly and Soldering Criteria for High Quality/High Reliability Soldered Wire and Cable Termination in Aerospace Vehicles
AS5768	Tool, Stripper, Electrical Insulation, General Specification For
AS5768/1	Tool, Stripper, Manually Actuated, Electrical Insulation, Round Wire, Size 10 to 30
AS5768/2	Tool, Stripper, Manually Actuated, Small Grip, Electrical Insulation, Round Wire, Size 16 to 30
AS22759/1*	Wire, Electrical, Fluoropolymer-Insulated, PTFE and PTFE-Coated Glass, Silver-Coated Copper Conductor, 600-Volt
AS22759/2*	Wire, Electrical, Fluoropolymer-Insulated, PTFE, and PTFE-Coated-Glass, Nickel-Coated Copper Conductor, 600-Volt
AS22759/3*	Wire, Electrical, Fluoropolymer-Insulated, TFE-Glass-TFE, Medium Weight, Nickel-Coated Copper Conductor, 600-Volt
AS22759/4*	Wire, Electrical, Fluoropolymer-Insulated, TFE-Glass-FEP, Medium Weight, Silver-Coated Copper Conductor, 600-Volt
AS22759/5*	Wire, Electrical, Fluoropolymer-Insulated, Abrasion Resistant Extruded PTFE, Silver-Coated Copper Conductor, 600-Volt, RoHS
AS22759/6*	Wire, Electrical, Fluoropolymer-Insulated, Abrasion Resistant Extruded PTFE, Nickel-Coated Copper Conductor, 600-Volt, RoHS
AS22759/7*	Wire, Electrical, Fluoropolymer-Insulated, Abrasion Resistant Extruded PTFE, Medium Weight, Silver-Coated Copper Conductor, 600-Volt, RoHS

AS22759/8*	Wire, Electrical, Fluoropolymer-Insulated, Abrasion Resistant Extruded PTFE, Medium Weight, Nickel-Coated Copper Conductor, 600-Volt, RoHS
AS22759/9*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Silver-Coated Copper Conductor, 1,000-Volt, RoHS
AS22759/10*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Nickel-Coated Copper Conductor, 1,000-Volt, RoHS
AS22759/11*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Silver-Coated Copper Conductor, 600-Volt, RoHS
AS22759/12*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Nickel-Coated Copper Conductor, 600-Volt, RoHS
AS22759/13*	Wire, Electrical, Fluoropolymer-Insulated, FEP-PVF2, Medium Weight, Tin-Coated Copper Conductor, 600-Volt, RoHS
AS22759/14*	Wire, Electrical, Fluoropolymer-Insulated, FEP-PVF2, Light Weight, Tin-Coated Copper Conductor, 600-Volt, RoHS
AS22759/15*	Wire, Electrical, Fluoropolymer-Insulated, FEP-PVF2, Light Weight, Silver-Coated High Strength Copper Alloy Conductor, 600-Volt, RoHS
AS22759/16*	Wire, Electrical, Fluoropolymer-Insulated, Extruded ETFE, Medium Weight, Tin-Coated Copper Conductor, 600-Volt, 150°C, RoHS
AS22759/17*	Wire, Electrical, Fluoropolymer-Insulated, Extruded ETFE, Medium Weight, Silver-Coated High Strength Copper Alloy Conductor, 600-Volt, 150°C, RoHS
AS22759/18*	Wire, Electrical, Fluoropolymer-Insulated, Extruded ETFE, Light Weight, Tin-Coated Copper Conductor, 600-Volt, 150°C, RoHS
AS22759/19*	Wire, Electrical, Fluoropolymer-Insulated, Extruded ETFE, Light Weight, Silver-Coated High Strength Copper Alloy Conductor, 600-Volt, 150°C, RoHS
AS22759/20*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Silver-Coated High Strength Copper Alloy Conductor, 1000-Volt, RoHS
AS22759/21*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Nickel-Coated High Strength Copper Alloy Conductor, 1000-Volt, RoHS
AS22759/22*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Silver-Coated High Strength Copper Alloy Conductor, 600-Volt, RoHS
AS22759/23*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Nickel-Coated High Strength Copper Alloy Conductor, 600-Volt, RoHS
AS22759/24-/27*	MIL-W-22759 detail versions (/24-/27) were canceled without supersession. To maintain harmony between AS22759 and MIL-DTL-22759 the AS22759/24-/27 numbers will not be used
AS22759/28*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Polyimide Coated, Silver-Coated Copper Conductor, 600-Volt, RoHS
AS22759/29*	Wire, Electrical, Fluoropolymer-Insulated, Extruded TFE, Polyimide Coated, Nickel-Coated Copper Conductor, 600-Volt, RoHS