



AEROSPACE STANDARD

AS1055™**REV. E**

Issued 1969-02
Reaffirmed 2013-01
Revised 2017-10

Superseding AS1055D

Fire Testing of Flexible Hose, Tube Assemblies, Coils,
Fittings, and Similar System Components

RATIONALE

Add zero flow types.

1. SCOPE

This SAE Aerospace Standard (AS) establishes uniform requirements and procedures for the fire testing of flexible hose assemblies and rigid tube assemblies (including coiled tubes) to be used in aircraft or aerospace vehicle fluid systems. These procedures may also be followed for fire tests on other piping components as specified by the customer. It also refers to standard fire test equipment to be used in conducting "referee" fire tests.

1.1 Classification

Component assemblies shall be designated by Type and Class according to fire test duration and usage. Flame test apparatus and temperature shall be the same for each Type and Class.

1.1.1 Types

Type Ia - Hose Assembly, Rubber - Fuel and Oil Systems

Type Ib - Hose Assembly, Rubber - Hydraulic Systems

Type Ic - Hose Assembly, Rubber - Zero Flow Systems

Type IIa - Hose Assembly, Polytetrafluoroethylene - Fuel and Oil Systems

Type IIb - Hose Assembly, Polytetrafluoroethylene - Hydraulic Systems

Type IIc - Hose Assembly, Polytetrafluoroethylene - Zero Flow Systems

Type IIIa - Rigid Tubing Assembly - Fuel and Oil Systems

Type IIIb - Rigid Tubing Assembly - Hydraulic Systems

Type IIIc - Rigid Tubing Assembly - Zero Flow Systems

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NOTES

1. The Types listed above, when tested to higher pressures, temperatures, and lower flow rates do not have to be retested to qualify to lower pressures, low temperatures, and/or higher flow rates.
2. An index of the types of assembly by specification is contained in Appendix A.

- 1.1.2 a. Class A - Fire Resistant: 5 minutes
b. Class B - Fireproof: 15 minutes

NOTE: The user of this document is cautioned that the class designation relates only to assemblies tested under the specified flow conditions.

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.

AIR1377	Fire Test Equipment for Flexible Hose and Tube Assemblies
AS150	Hose Assembly, Type Classifications of, Basic Performance and Fire Resistance
AS1072	Sleeve, Hose Assembly, Fire Protection

2.2 FAA Publications

Available from Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591, Tel: 866-835-5322, www.faa.gov.

Federal Air Regulation (FAR) Code of Federal Regulations Volume 14, Airworthiness Standard

Powerplant Engineering Report No. 3A

3. QUALIFICATION

The component assemblies furnished under this document shall be products which have been tested and passed the fire test requirements listed herein. These products shall also have been tested and passed the performance requirements of the latest applicable specifications, or other applicable specifications designated by the purchaser.

Test report(s) proving qualification of products to this specification shall be furnished by the supplier to the purchaser and to such cognizant agencies designated by the purchaser, for acceptance of qualification. Qualification by similarity, to assemblies or parts previously tested and qualified, shall be acceptable.