



AEROSPACE STANDARD

AS8047™

Issued 1987-11
Reaffirmed 2021-08

Performance Standard for Cabin Crew Portable Protective
Breathing Equipment for Use During Aircraft Emergencies

RATIONALE

AS8047 has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

1.1 Scope:

This aerospace standard (AS) defines the requirements of portable protective breathing equipment for use during smoke/fire conditions on board an aircraft.

1.2 Classification:

The equipment is required to protect and to be suitable for use by crew during the following scenarios:

- Class 1) For an in-flight cabin or accessible compartment smoke/fire conditions at normal cabin altitude (up to 8,000 ft equivalent).
- Class 2) In addition to the requirements of Class 1, protection against a subsequent depressurization to +40,000 ft while wearing the unit.
- Class 3) Emergency ground evacuation of the aircraft during fire/smoke conditions, operating escape systems and assisting passengers.
- Class 4) In flight emergency and ground evacuation during smoke/fire conditions (as per Class 1 & 3 combined).

2. REFERENCES:

2.1 Applicable Documents:

AS 8010	Aviators Breathing Oxygen Purity Standard
AS 8031	Personal Protective Devices for Toxic and Irritating Atmospheres, Air Transport Crew Members

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Full document details: SAE AS8047

For more information on this standard, visit
<https://www.sae.org/standards/content/AS8047/>

Documents
Document Sharing Hub

2.1 (Continued):

AIR 825	Oxygen Equipment for Aircraft
FAR PART 121 FAR PART 25	Certification & Operation Air Carrier Commercial Operation
TSO-C99	Protective Breathing Equipment
TSO-C69b	Emergency Evacuation Slides. Ramps and Slide/Ramp combinations
ASTM D1149	Rubber Deterioration - Surface Ozone Cracking in a Chamber (Flat Specimens)
ASTM D624	Rubber Property - Tear Resistance
ASTM D750	Rubber Deterioration in Carbon Arc or Weathering Apparatus
ASTM D1048	Rubber Insulating Blankets - Para 19.2.4
ASTM D228	Method of Testing Asphalt Roofing, Cap Sheets, and Shingles
AMRL Test Report 70-5	Anthropometry of Air Force Women
WADC Test Report 58-505	Anthropometric sizing
BS 4667 Part 4	British Standard Specification for Breathing Apparatus
FAA-RD-77-18	Development of a fire protective overgarment for use by air carrier flight attendants
ATS 1000.001	Fire - Smoke - Toxicity (FST) Test Specifications
I.A.M. A.E. Report 543	A study of Workload and Oxygen Consumption for Cabin Crew Members During Smoke/Fire
C.G.A. G-7.1 Grade D	Commodity Specification for Air (Moisture content levels as per AS 8010)
MIL-STD-810	Environmental Test Methods and Engineering Guidelines
FAA-AM-78-41	FAA Report - Optical Properties of Smoke Protective Devices
AAM-119-86-4	A Study of Workload and Oxygen Consumption for Airline Cabin Crew Members During a Simulated In-flight Smoke/Fire Emergency