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The Engineering Society For Advancing Mobility Land Sea Air and Space®
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE STANDARD

AS1072

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REV. D

Submitted for recognition as an American National Standard

SLEEVE, HOSE ASSEMBLY, FIRE PROTECTION

1. SCOPE:

This standard defines the requirements for bulk protective sleeve to provide fire resistance for aircraft hose assemblies, which will enable these assemblies to meet the requirements of AS1055.

NOTE: Use of this sleeve does not eliminate the need to demonstrate that the sleeved assemblies will meet the applicable requirements of AS1055.

2. REQUIREMENTS:

2.1 Type:

Type 1 - Butyl Rubber Composite

Type 2 - Silicone Rubber Composite

2.2 Quality: All sleeves furnished under this standard shall comply with the requirements of AS1055 when installed on the appropriate aircraft hose assemblies.

2.2.1 When installed on the appropriate aerospace hose assembly, the cut ends of the sleeving shall be protected with material that is compatible with the cover in order to prevent wicking of fluid to the inside of sleeving.

2.3 Fluid and Temperature Resistance:

2.3.1 Butyl Rubber Composite (Type 1): The coating of the fiberglass firesleeve shall be butyl rubber with minimum 1/32 in (0.8 mm) thickness, grey or black in color, with green or silver identification markings.

2.3.1.1 Fluid Resistance: This sleeve shall be functional after exposure to the following fluids in a normal aircraft environment when tested as required in AS1055:

Phosphate ester type hydraulic fluids
MIL-H-5606 hydraulic fluid
MIL-T-5624 jet fuel
MIL-L-7808 lubricating oil
MIL-L-23699 lubricating oil
MIL-H-83282 hydraulic fluid

Caution should be used in the selection of chlorinated cleaning fluids because decomposition of chlorinated solvents can generate HCl or Cl_2 which may endanger equipment and personnel.

2.3.1.2 Temperature: The Type 1 sleeve shall be usable in the range of -65°F (-54°C) to +250°F (+120°C).

2.3.2 Silicone Rubber Composite (Type 2): The coating of the fiberglass sleeve shall be silicone rubber with minimum 1/32 in (0.8 mm) thickness, orange or brown in the color with black or white identification markings.

2.3.2.1 Fluid Resistance: This sleeve shall be functional after exposure to the following fluids in a normal aircraft environment when tested as required in AS1055:

Phosphate ester type hydraulic fluids
MIL-H-5606 hydraulic fluid
MIL-T-5624 jet fuel
MIL-L-6082 lubricating oil
MIL-L-7808 lubricating oil
MIL-L-23699 lubricating oil
MIL-H-83282 hydraulic fluid

Caution should be used in the selection of chlorinated cleaning fluids because decomposition of chlorinated solvents can generate HCl or Cl_2 which may endanger equipment and personnel.

2.3.2.2 Temperature: The Type 2 sleeve shall be usable in the range of -65°F (-54°C) to +500°F (+260°C).

2.4 Asbestos: Asbestos shall not be used in the construction of these sleeves.

2.5 Identification: The sleeves shall be marked on the outer surface, on at least one layline, parallel to the bore, with AS1072, the dash number designating size, the coating description ("BTL", etc.) base construction ("FG", etc.) in 3/8 in (10 mm) high characters. The marking shall be resistant to rubbing and the fluids called out in 2.3.1.1 or 2.3.2.1. The identification strip shall be repeated every 12 in. (300 mm) or less along the entire length of the sleeve.

2.6 Example of Part Identification: