

Recommended Solid Film Lubricants
for Fluid System Components

RATIONALE

ARP5824 has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

This SAE Aerospace Recommended Practice (ARP) provides recommended solid film lubricants for use on fluid system components at different temperatures and cyclic conditions.

1.1 Purpose:

The purpose of this ARP is to consider the characteristics of various solid film lubricants and provide recommendations for use on fluid system components under varying conditions and applications.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this specification 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, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS1701 Lubricant, Solid Film
AS5272 Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting, Procurement Specification

2.1.2 U.S. Government Publications: Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-L-46010 Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting

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2.2 Applications:

2.2.1 Metallic Components, Threaded and Unthreaded: General purpose solid film lubricants are available for use on metallic components in most systems and temperature ranges. Factors limiting their use could be gaseous breathing oxygen systems, water systems, liquid oxygen systems, or strong oxidizers. Where the lubricants are in direct contact with system fluids, compatibility should be verified.

2.2.2 Gaseous Breathing Oxygen Systems: TBD

3. RECOMMENDED SOLID FILM APPLICATION:

3.1 Metallic Components:

3.1.1 The recommended solid films for use on metallic components at varying temperatures, materials to be coated and the comments about using them is shown in Table 1.

4. NOTES:

4.1 Key Words:

Solid film lubricants, coatings

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