



AEROSPACE MATERIAL SPECIFICATION

AMS3220™**REV. H**

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Superseding AMS3220G

Rubber, Synthetic
General Purpose, Fluid Resistant
55 - 65

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE

1.1 Form

This specification covers a synthetic rubber in the form of sheet, strip, tubing, extrusions, and molded shapes.

1.2 Application

Primarily for packing and sealing joints which come in contact with aircraft fuels, hot petroleum-base lubricating oils, and ethylene glycol from -20 to +220 °F (-29 to +104 °C) This material has fair resistance to all fluids listed. Where better resistance to a particular fluid is required, use the AMS for material compounded specifically for good resistance to that fluid.

1.3 Safety - Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS2279 Tolerances, Rubber Products

AMS2810 Identification and Packaging, Elastomeric Products

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D 297 Standard Test Methods for Rubber Products - Chemical Analysis

ASTM D 412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension

ASTM D 471 Standard Test Method for Rubber Property - Effect of Liquids

ASTM D 573 Standard Test Method for Rubber - Deterioration in an Air Oven

ASTM D 2240 Standard Test Method for Rubber Property - Durometer Hardness

ASTM D 3182 Standard Practice for Rubber – Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets.

3. TECHNICAL REQUIREMENTS

3.1 Material

Shall be a compound, based on a synthetic elastomer, suitably cured to produce a product meeting the requirements of 3.2.

3.1.1 Toxicological Formulations

The material shall have no adverse effects on the health of personnel when used for its intended purpose in accordance with manufacturer's instructions and with appropriate handling procedures.

3.2 Physical Properties

The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with specified ASTM methods, insofar as practicable

3.2.1 Original Properties

3.2.1.1	Hardness, Durometer "A" or equivalent	60 ± 5	ASTM D 2240
3.2.1.2	Elongation, minimum	200%	ASTM D 412, Die B or C
3.2.1.3	Specific Gravity	Preproduction Value ± 0.02	ASTM D 297