



AEROSPACE MATERIAL SPECIFICATION

AMS3823**REV. E**

Issued	1969-05
Revised	1985-04
Reaffirmed	1991-04
Noncurrent	1994-04
Stabilized	2015-07

Superseding AMS3823D

Cloth, Glass
Style 7781, Chrome-Silane Finish

RATIONALE

Design Authorities may determine that this document is no longer to be used for New Design. This determination should be made by each Design Authority.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE AMS P17 Composite Materials Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2015 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
<http://www.sae.org>

SAE values your input. To provide feedback
on this Technical Report, please visit
<http://www.sae.org/technical/standards/AMS3823E>

SAE WEB ADDRESS:

Full document details: SAE AMS3823E

Documents

Document Sharing Hub

1. SCOPE:
 - 1.1 Form: This specification covers one type of woven glass cloth treated with a chrome-silane finish.
 - 1.2 Application: Primarily for use as a reinforcing material for structural plastic laminates, particularly those having a polyester, epoxy, or phenolic resin matrix.
2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications shall apply. The applicable issue of other documents shall be as specified in AMS 2350.
 - 2.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.
 - 2.1.1 Aerospace Material Specifications:
AMS 2350 - Standards and Test Methods
 - 2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM D123 - Terminology Relating to Textiles Materials
ASTM D374 - Thickness of Solid Electrical Insulation
ASTM D578 - Glass Fiber Yarns
ASTM D579 - Griage Woven Glass Fabrics
ASTM D2410 - Finish Content of Woven Glass Fabric, Cleaned and After-Finished with Chrome Complexes, for Plastic Laminates
ASTM D3775 - Fabric Count of Woven Fabric
ASTM D3776 - Weight (Mass) per Unit Area of Woven Fabric

2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

2.3.1 Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing of

3. TECHNICAL REQUIREMENTS:

3.1 Material:

3.1.1 Yarn: The cloth shall be woven from ECDE 75-l/0 yarn as defined in ASTM D578.

3.1.2 Weave: The weave shall be an eight harness, satin weave in which each warp and fill yarn goes under one, and over seven, then under one, etc. The interweaving of the warp and fill yarns shall be staggered, i.e., the No. 1 warp yarn shall go under the No. 1, No. 9, No. 17, etc fill yarn, and the No. 2 warp yarn shall go under the No. 2, No. 10, No. 18, etc, fill yarn, etc.

3.1.3 Finish: The cloth shall have been suitably cleaned to remove all lubricating materials or binders, followed by a chrome-silane finish which will meet the requirements of 3.2.4. The chrome-silane finish shall aid in wetting the cloth with resin and shall provide an intermediate chemical bond between the cloth and resin when the cloth is used for reinforcing plastic laminates.

3.2 Properties: Cloth shall conform to the following requirements; tests shall be performed on the cloth supplied and in accordance with specified ASTM methods:

3.2.1	Weight	8.1 - 9.2 oz per sq yd (275 - 310 g/m ²)	ASTM D3776, Small Sample Method
Ø			
3.2.2	Thickness	0.0085 in. ± 0.001 (0.215 mm ± 0.02)	ASTM D374, Method C
3.2.3	Thread Count		ASTM D3775
Ø			
	Warp	55 - 59 ends per in. (25.4 mm)	
	Fill	52 - 56 ends per in. (25.4 mm)	
3.2.4	Chrome-Silane Level, by weight	0.020 - 0.035%	ASTM D2410