



AEROSPACE MATERIAL SPECIFICATION

AMS3912™

REV. A

Issued 1974-03
Revised 1985-07
Reaffirmed 2022-08

Superseding AMS3912

Radomes, Foam Sandwich
Polyimide/Quartz Cloth Construction

RATIONALE

AMS3912A has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE:

1.1 Form: This specification covers the material and process requirements for fabricating sandwich radomes having polyimide-resin-impregnated quartz cloth shells and polyimide-resin syntactic foam cores.

1.2 Application: Primarily as a radar-transparent structure for use as an electromagnetic window up to 315°C (600°F).

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

AMS 3138 - Coating Materials, Fluorocarbon Elastomeric

AMS 3619 - Resin, Polyimide, Laminating, High Temperature Resistant, 315°C (600°F)

AMS 3684 - Resin, Polyimide, Sealing, High-Temperature Resistant, 315°C (600°F), Unfilled

AMS 3686 - Adhesive, Polyimide Resin, Film and Paste, High Temperature Resistant, 315°C (600°F)

AMS 3709 - Syntactic Foam Tiles

AMS 3751 - Microspheres, Hollow Glass

AMS 3805 - Wipes, Cotton, Loosely Woven

AMS 3824 - Cloth, Glass, Finished for Resin Laminates

AMS 3847 - Cloth, Quartz, "B" Stage Polyimide Resin Impregnated, Style 581 Fabric, 315°C (600°F)

AMS 4770 - Brazing Filler Metal, Silver, 50Ag - 18Cd - 16.5Zn - 15.5Cu, 1160° - 1175°F (625° - 635°C) Solidus-Liquidus Range

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