



# AEROSPACE MATERIAL SPECIFICATION

**AMS2517™****REV. B**

|            |         |
|------------|---------|
| Issued     | 1984-04 |
| Revised    | 2001-06 |
| Reaffirmed | 2013-11 |
| Stabilized | 2019-02 |

Superseding AMS2517A

Dimer, Dichloro 2, 2 Para-Cyclophane

## RATIONALE

AMS2517B stabilizes this document because this document contains mature technology that is not expected to change and thus no further revisions are anticipated.

## STABILIZED NOTICE

AMS2517B has been declared "STABILIZED" by AMS Committee B Finishes, Processes and Fluids Committee. This document will no longer be updated and may no longer represent standard industry practice. Previously this document was reaffirmed. The last technical update of this document occurred in June, 2001. Users of this document should refer any certification issues (e.g. exceptions listed on the certification report) to the cognizant engineering organization for their disposition.

NOTE: In many cases, the purchaser may be a sub-tier supplier and not the cognizant engineering organization.

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 © 2019 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](mailto:CustomerService@sae.org)  
<http://www.sae.org>

**SAE WEB ADDRESS:**

Full document details: [SAE AMS2517B](#)

SAE values your input. To provide feedback on this Technical Report, please visit <http://standards.sae.org/AMS2517B>

Documents  
Document Sharing Hub

## 1. SCOPE:

### 1.1 Purpose:

This specification covers the properties of a mixed dimer.

### 1.2 Application:

This product has been used typically in a vapor deposition process for the purpose of providing a protective coating for electronic parts, but usage is not limited to such applications.

## 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 canceled and no superseding document has been specified, the last published issue of that document shall apply.

### 2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2535 Coating, Vapor Deposited Poly-Monochloro-Para-Xylylene for Microcircuits

### 2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM D 257 D-C Resistance or Conductance of Insulating Materials

ASTM D 3030 Volatile Matter (Including Water) of Vinyl Chloride Resins

### 2.3 IPC Publications:

Available from Institute of Interconnecting and Packaging Electronic Circuits, 2215 Sanders Road, Northbrook, IL 60062-6135.

IPC B-25 Multi-purpose Test Board Pattern

## 3. TECHNICAL REQUIREMENTS:

### 3.1 Composition:

The material shall be a mixed dimer consisting of various isomers of chlorinated 2,2 para-cyclophane with the following composition in percent by weight as shown in Table 1:

TABLE 1

| Ingredient                    | min  | max  |
|-------------------------------|------|------|
| Di-Para-Cyclophane            | --   | 2.0  |
| Monochloro-Di-Para-Cyclophane | --   | 10.0 |
| Dichloro-Di-Para-Cyclophane   | 75.0 | --   |
| Trichloro-Di-Para-Cyclophane  | --   | 20.0 |
| Higher Isomers                | --   | 2.0  |
| Other Compounds               | --   | 1.0  |

3.1.1 Color and Appearance: The dimer shall be supplied as a white granular product.

### 3.2 Properties:

The dimer shall conform to the requirements shown in Table 2, determined in accordance with specified test methods insofar as practicable:

TABLE 2 - Dimer Properties

|       | Value                                              | Percent                  | Test Method |
|-------|----------------------------------------------------|--------------------------|-------------|
| 3.2.1 | Vaporization at 185 °C (365 °F) and 0.01 torr, min | 99%                      | 4.5.1       |
| 3.2.2 | Solids Content, min                                | 99%                      | 4.5.2       |
| 3.2.3 | Solubility, min                                    | 99%                      | 4.5.3       |
| 3.2.4 | Insulation Resistance, min                         | 1 x 10 <sup>9</sup> ohms | 4.5.4       |

### 3.3 Quality:

Dimer, as received by purchaser, shall be uniform in quality and condition and free from foreign materials and other contaminants detrimental to usage of the dimer.