



# AEROSPACE MATERIAL SPECIFICATION

## AMS 3845/2

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Revised

CLOTH, TYPE "E" GLASS, "B" STAGE POLYIMIDE-RESIN-IMPREGNATED  
181 Style Fabric, High-Flow Addition-Cure Resin  
For Press Cure 40 - 100 psi (276 - 690 kPa) or Vacuum/Autoclave Processing

### 1. SCOPE:

- 1.1 Form: This specification covers one type of glass cloth impregnated with a heat-reactive, addition-cure, thermosetting, polyimide-resin system, the resin to be supplied in a "B" stage condition for high flow and press cure at 40 - 100 psi (276 - 690 kPa) or vacuum/autoclave processing.
- 1.2 Application: Primarily for laminated structural parts requiring high strength and long term heat resistance at temperatures up to 450° F (232° C) and short term exposure to 554° F (290° C).

2. APPLICABLE DOCUMENTS: Shall be as shown in AMS 3845.

### 3. TECHNICAL REQUIREMENTS:

#### 3.1 Materials:

3.1.1 Basic Specification: The complete requirements for procuring the material described herein shall consist of this document and the latest issue of the basic specification, AMS 3845.

3.1.2 Reinforcement: Shall conform to AMS 3824, Style 181, 1581, or 7781.

3.1.3 Resin: Shall conform to AMS 3618.

3.2 Storage Life: The impregnated material shall have a shelf life of not less than three months from date of shipment when stored or shipped in a barrier container and maintained at a temperature between 40° and 60° F (4.4° and 15.6° C).

3.3 Properties of the Uncured Impregnated Product: The product, as supplied, shall conform to the following requirements; in addition, when specified, tack and drape shall be as agreed upon by purchaser and vendor:

3.3.1 Volatile Content and Resin Solids: Volatile content shall be not greater than 10%. Devolatilized resin content shall be as specified by purchaser.

3.3.2 Gel Time: Shall be either 50 min.  $\pm 10\%$  or the qualification value  $\pm 20\%$ , as agreed upon by purchaser and vendor, determined using a platen temperature of 554° F  $\pm 9$  (290° C  $\pm 5$ ).

3.3.3 Wet Resin Flow: Shall be as agreed upon by purchaser and vendor, with a tolerance of  $\pm 20\%$ , determined using a platen temperature of 554° F  $\pm 9$  (290° C  $\pm 5$ ).

3.4 Properties of Cured Laminate: Shall be as follows, determined on specimens cut from the test laminate prepared as specified in the basic specification and tested in accordance with the methods specified therein. Specimen shall be held at the specified test temperature for not less than 30 min. before testing.

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