

INCH-POUND
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MIL-PRF-46190A  
AMENDMENT 1  
22 February 1999

## PERFORMANCE SPECIFICATION

### PREPREGS, WOVEN FABRIC, CARBON FIBER, RESIN IMPREGNATED

This amendment forms a part of MIL-PRF-46190A, dated 22 May 1997, and is approved for use by all Departments and Agencies of the Department of Defense.

#### PAGE 4

3.3.1, second sentence: Delete.

3.3.3, line 1 and 2: Delete and substitute: "Treated fiber shall be compatible with the resin used, and comply with the property requirements in table I."

3.4.2, line 2: After "width" insert "(see 6.2)".

3.4.3, first and second sentence: Delete.

3.4.4, first sentence and third sentence: Delete first sentence. After "yarns" in third sentence insert "that can be detected by visual examination".

#### PAGE 5

3.5.3, last three sentences: Delete.

3.5.5, second sentence: Delete.

#### PAGE 6

3.6.1, line 3 and 4: Delete "be specified in a process specification" and substitute "meet the requirements specified in table VI".

3.6.3, line 1, 2, and 3: Delete and substitute "The cured laminates shall conform to the mechanical property requirements specified in table VI."

3.8, first and last sentence: Delete and substitute "The cured composite material shall be resistant to the fluids listed in table VII. The short beam shear strength shall be as specified by the procuring activity when immersed in the fluids specified in table VII for the exposure times and temperatures specified (see 6.2)."

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4.3.1 Delete.

Add as new paragraph:

“4.4.3 Tracer strands. An x-ray detectable glass tracer yarn shall be placed on  $2.0 \pm 0.25$  inch centers in the warp direction and  $6 \pm 1$  inch centers in the weft direction in each ply of material.”

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4.5.6, line 2: After “3.5.7” insert “by using the test methods specified in table III”.

Add as new paragraph:

“4.5.7 Alignment. The supplier shall, as a minimum, determine the alignment at the start and end of each roll of impregnated fabric. Straightening of impregnated fabric is not permitted when measuring alignment. A tenter frame to correct fiber alignment in impregnated fabric may be used.”

4.6.1: Delete.

4.7: Delete.

4.8, first sentence: Delete and substitute “The cured composite material shall be tested in accordance with ASTM D2344 and meet the requirements specified in 3.8.”

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Add as new lines in paragraph 6.2:

“h. Acceptable value for selvage width (see 3.4.2).”

“i. Acceptable value for short beam shear strength (see 3.8).”

Add as new paragraphs:

“6.4.1 Tracer yards. AR/CK 32.5 I/O, 1 ounce, size 460 white x-ray detectable glass yarn, or an approved equivalent available from Owens Corning Fiberglas Company in Toledo, Ohio are acceptable for use in 3.4.3.”

“6.4.2 Carbon tows. A material consisting of carbon tows that have been woven and impregnated with a resin has been found acceptable to the Government in meeting the formulation requirement in 3.3.1.”

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Custodians:

Army - MR  
Navy - AS  
Air Force - 11

Preparing activity:

Army - MR

(Project CMPS-0165)

Review activities:

Army - AT, AV, IE  
Navy - SH  
Air Force - 13  
DLA - DH(DCMC-OF)