

INCH-POUND

MIL-R-46198

AMENDMENT 1

1 July 1992

## MILITARY SPECIFICATION

## RESIN, POLYIMIDE, HOT PRESSED OR PRESSED AND SINTERED

This amendment forms a part of MIL-R-46198, dated 7 January 1988, and is approved for use by all Departments and Agencies of the Department of Defense.

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3.2 Delete the first sentence and substitute the following sentence:

"3.2 Material. The material shall consist of polyimide resins with base polymer structure derived from the reaction of dianhydride and diamine, or other equivalent polyimide resins which meet the requirements of this specification."

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TABLE III: Specific Gravity, "reduce specific gravity values by 3%"  
Delete table III and replace as follows:

Custodians:  
Army - MR  
Navy - AS  
Air Force - 11  
DLA - GS

Preparing activity:  
Army - MR  
  
Project 9330-1249

(WP# ID-0302B/DISC-0043A. FOR MTL USE ONLY)

TABLE III. Mechanical properties (minima).

Type/ Class	75+50°F	Tensile Strength MPa (ksi)	500+50°F (Note 2)	Tensile Elongation %	75+50°F	500+50°F (Note 2)	Specific Gravity	75+50°F	Flexural Strength MPa (ksi) (Note 2)	75+50°F	Compressive Strength MPa (ksi) (Note 2)	75+50°F
IM	76 (11)	34.5 (5.0)	34.5 (5.0)	4.8	4.8	4.0	1.38	1.38	103 (15)	241 (35)		
IP	69 (10)	27.6 (4.0)	27.6 (4.0)	4.5	4.5	4.0	1.38	1.38	83 (12)	207 (30)		
ID	65.5 (9.5)	34.5 (5.0)	34.5 (5.0)	5.0	5.0	4.5	1.29	1.29	69 (10)	186 (27)		
(Note 1)												
II/1M	55.2 (8.0)	29.7 (4.3)	29.7 (4.3)	3.5	3.5	2.5	1.44	1.44	83 (12)	186 (27)		
II/1P	44.8 (6.5)	25.5 (3.7)	25.5 (3.7)	3.0	3.0	2.0	1.44	1.44	65.5 (9.5)	172 (25)		
II/1D	55.2 (8.0)	27.6 (4.0)	27.6 (4.0)	3.5	3.5	2.5	1.37	1.37	76 (11)	172 (25)		
(Note 1)												
II/2M	44.8 (6.5)	20.7 (3.0)	20.7 (3.0)	1.3	1.3	0.8	1.59	1.59	55.2 (8.0)	110 (16)		
II/2P	32.4 (4.7)	13.8 (2.0)	13.8 (2.0)	1.3	1.3	0.8	1.59	1.59	51.7 (7.5)	103 (15)		
II/2D	41.5 (6.0)	24.1 (3.5)	24.1 (3.5)	1.8	1.8	1.0	1.50	1.50	55.2 (8.0)	103 (15)		
(Note 1)												
II/3M	37.9 (5.5)	17.2 (2.5)	17.2 (2.5)	2.0	2.0	1.8	1.49	1.49	58.6 (8.5)	110 (16)		
II/3P	24.1 (3.5)	13.8 (2.0)	13.8 (2.0)	2.0	2.0	1.5	1.49	1.49	37.9 (5.5)	103 (15)		
II/3D	44.8 (6.5)	20.7 (3.0)	20.7 (3.0)	4.0	4.0	3.0	1.39	1.39	55.2 (8.0)	103 (15)		
(Note 1)												
III/M	31.1 (4.5)	-----	-----	2.7	2.7	-----	1.52	1.52	55.2 (8.0)	-----		
III/P	31.1 (4.5)	-----	-----	2.7	2.7	-----	1.52	1.52	65.5 (9.5)	-----		

Note 1: For parts and specimens direct-formed (pressed and sintered) from powder, tensile strength, elongation, and flexural strength are measured perpendicular to the pressing direction. This is the direction for maximum strength so that the strength minima listed may not apply in other directions. Compressive strength is measured parallel to the pressing direction so that the strength levels listed are true minima.

Note 2: Shall be tested for initial acceptance of material, if requested by procuring activity, or in event of formulation change. Material must be capable of meeting or exceeding minimum requirements when tested at option of procuring activity.