

L-P-393A
 AMENDMENT-2
 June 22, 1970
 SUPERSEDING
 Amendment-1
 February 11, 1965

FEDERAL SPECIFICATION

PLASTIC MOLDING MATERIAL, POLYCARBONATE, INJECTION AND EXTRUSION

This amendment, which forms a part of Federal Specification L-P-393A, dated January 31, 1964, was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

PAGE 1

Paragraph 2.1, line 4: Following "bids" insert "or request for proposal".

PAGE 2

Paragraph 2.1, under "Military Specifications", add: "MIL-P-45662 - Calibration of Standards."

Paragraph 2.2, line 5: Following "bids" insert "or request for proposal".

PAGE 3

Table I; delete and substitute:

TABLE I. Property values

Property (see table IV)	Value required
Density, range inclusive, D-23° C. g./ml.	1.19 to 1.22
Tensile yield strength, minimum, p.s.i.	8,000
Tensile ultimate elongation, minimum, percent	60
Flexural strength, minimum, p.s.i.	11,000
Isod impact strength, minimum, ft., lb./inch of notch:	
0.125 in. thick	12
0.250 in. thick	1.8
Brittleness, -55° C.	1/
Deflection temperature, 264 p.s.i., minimum, °C	128
Water absorption, 24 hrs., maximum percent	0.35
Dielectric strength, 100 c.p.s., maximum, volts/ml.	350 2/
Dissipation factor, maximum, 1 MHz	0.015
Flammability (when specified, see 6.2):	
Ignition time, minimum, sec.	75
Burning time, maximum, sec.	75
Pyrolysis products (when specified, see 6.2) quantities, parts per million, maximum:	
Carbon dioxide	15,000
Carbon monoxide	1,000
Ammonia	2,500
Aldehydes as H·CHO	50
Cyanides as HCN	60
Oxides of nitrogen as NO ₂	100
Hydrogen chloride	100

1/At least 5 out of 10 specimens shall not fail the brittleness test (see 4.5.3.5).
 2/Changed value from 400 to 350.

Paragraph 4.1.1: At end of paragraph add: "Calibration of the standards which control the accuracy of the inspection equipment shall comply with the requirements of MIL-C-45662."

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Paragraph 4.2: In line 1, delete "inspection" and substitute "examinations and tests"; in line 4, delete "Acceptance" and substitute "Quality conformance".

Paragraph 4.4, line 1: Delete "Acceptance" and substitute "Quality conformance".

PAGE 4

Table III, column 1: Delete "toxicity" and substitute "pyrolysis products".

PAGES 4 and 5

Tables II and IV, column 1: Delete "tensile ultimate strength".

PAGE 5

Paragraph 4.5.3.2: Delete and substitute:

4.5.3.2 Tensile yield strength and tensile ultimate elongation. Type I or type III specimens shall be used. Speed B and speed C shall be used for tensile yield strength and tensile ultimate elongation, respectively.

PAGES 5 and 6

Table IV, column 1 and 4.5.3.10: Delete "toxicity" and substitute "pyrolysis products".

PAGE 6

Paragraph 4.5.3.7: At end of paragraph add: "The test specimen shall be in the form of a disc, 2-inch diameter by 1/8-inch thickness."

PAGE 7

Paragraph 6.1: At end of paragraph add: "Design engineers are further cautioned to review manufacturer's design recommendations for proper part design from the molding and end-use standpoints to prevent failure of parts which may occur under certain environments due to molded-in or externally applied stresses."

Paragraph 6.2(f): Delete "toxicity" and substitute "pyrolysis products".

Paragraph 6.3, line 1: Delete "Preparation of specimens." and substitute "Molding cautions."

Paragraph 6.4: Under "Powder" delete and substitute:

"Rail:

Plastics, other than liquid, not otherwise indexed.

Carload minimum weights, 10,000, 20,000, and 30,000 pounds, subject to Rule 34, Uniform Freight Classification."

PAGE 8

Notice: Delete.

MILITARY CUSTODIANS:

Army - EL
Navy - EH
Air Force - 11

Preparing activity:

Army - EL

Review activities:

Army - EL, MI, MR, MU