

MIL-P-60312C (AR)
AMENDMENT 2
5 December 1986
SUPERSEDING
AMENDMENT 1
27 February 1978

MILITARY SPECIFICATION

PARTS, MOLDED, PLASTIC FOAM, POLYSTYRENE
(FOR USE WITH AMMUNITION)

This Amendment forms a part of Military Specification MIL-P-60312C (AR), dated 5 June 1975, and is approved for use within the US Armament, Munitions and Chemical Command and is available for use by all Departments and Agencies of the Department of Defense.

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3.6 Add the following sentence:

"Excessive solids in the coating will cause a noticeable wax-type residue in the molded part. If this occurs, the coating solution should be diluted further until the wax-type residue is no longer excessive, but sufficient to meet the static potential requirement."

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* 2.2 Other publications: Delete in its entirety and substitute:

"2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids shall apply.

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY
TAPPI - T208 OM-84 - Moisture in Wood, Pulp, Paper, and
Paperboard by Toluene Distillation

(Applications for copies should be addressed to the Technical Association of the Pulp and Paper Industry, Technology Park/Atlanta, P.O. Box 105113, Atlanta, GA 30348.)"

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* 3.10 Self-extinguishing property.

Second sentence: Delete "as described in paragraph 7.5 of ASTM-D1692-74" and substitute "as described in in 4.5.8."

Third sentence: Delete "(positioned 12 inches below the test sample)" and substitute "(positioned 12 inches (305mm) max. below the test sample)".

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* 4.5.4.3 Test procedure, first sentence: Delete "ASTM D2044" and substitute "TAPPI - T208 OM-84".

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* 4.5.8 Self-extinguishing property.

Third sentence, delete "2 x 6 inches (when possible) x 1/2 inch" and substitute "50 x 150 milliliters (when possible x 12.5mm"

Fifth sentence, delete "one-half inch" and substitute "12.5mm".

Sixth sentence, delete "ASTM-D1692-74" and substitute "4.5.8.3".

NOTE 7, second sentence (Marking of...), delete in its entirety and substitute "Each test specimen shall be marked across its width by one line 125mm from one end".

Add new paragraphs as follows:

"4.5.8.1 Apparatus.

a. Test chamber - An enclosure free of induced or forced draft during test, yet it must permit normal thermal circulation of air past the specimen during burning. A hood is recommended. The recommended test chamber should be constructed of sheet metal or other fire-resistant material, having inside dimensions 300mm wide, 600mm long and 760mm high, and open at the top with a ventilating opening approximately 25mm high around the bottom. A viewing window of heat resistant glass should be of sufficient size and in such a position that the entire length of the specimen under test may be observed. The chamber should be readily opened and closed to facilitate mounting and ignition of the test specimen.

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- b. Burner - A standard 9.5 ± 0.5 mm outside diameter barrel Bunsen or Tirill burner fitted with a 48 ± 1 mm width ring top.
 - c. Fuel supply - Propane gas of at least 85 percent purity.
 - d. Specimen support - Wire cloth (wire screen) 6.5mm mesh using 0.8mm diameter steel wire. The wire cloth specimen support, 75 by 215mm, shall have a 15 ± 1 mm length bent (upward) to form a right angle. This bend shall take place along the 75mm end.
 - e. Specimen support holders - Any holding device that will clamp the wire cloth specimen support horizontally so that the bottom of the bend-up portion is 13 ± 1 mm above the top of the burner wing top. A typical arrangement consists of two laboratory ring stands with two adjustable flat surface clamps which may be locked in place by set screw and lock nut.
 - f. Sheet of flame retardant board - A sheet of flame retardant board, other than asbestos, (250 by 250 by 6.5mm) shall be placed on the bottom of the test chamber.
 - g. Aluminum foil.
 - h. Timing device - accurate to ± 1 second
 - i. Measuring scale - accurate in at least 2.0mm intervals
 - j. A device to ensure correct relative position of burner and specimen.
- 4.5.8.2 Conditioning - Specimens shall be conditioned prior to test for a minimum of 24 hours in an atmosphere having a temperature of 23 ± 2 °C and a relative humidity of 50 ± 5 percent. Tests shall be made in this atmosphere or immediately after removal therefrom.
- 4.5.8.3 Procedure - Clamp the wire cloth specimen support horizontally so that the bottom of the wire cloth is 13 ± 1 mm above the top of the burner wing top. Cover the sheet of flame retardant board with a layer of aluminum foil and place it on the bottom of the test chamber to catch any dripping or flaming particles. The distance between the wire cloth and the foil shall be between 150 to 200mm. Change the foil after each test if there is any debris on the surface from the previous determination. Burn off any material remaining on the wire cloth from the previous test or use a new wire cloth for each test. If a new wire cloth

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is not used for each test, the wire cloth should be cool to touch before being used. If dripping or melting material fall into the wing top, clean it before testing the next specimen. Place the specimen on the support with one end touching the 15mm bent-up portion of the support. The end of the specimen nearest the gage mark should be away from the bent-up end of the specimen support so that the gage mark is 125mm away from the bent-up end. Adjust the burner with the wing top to provide a blue flame whose visible portion is $38\text{mm} \pm 2\text{mm}$ high with a clearly defined inner cone $6.5\text{mm} \pm 1.0\text{mm}$ high. The wing top may have to be opened to approximately $3 \pm 0.1\text{mm}$ to provide the required flame. Place the burner under the upturned end of the specimen support so that one edge of the flame is in line with the upturned edge of the wire cloth and the other edge of the flame extends into the front of the specimen. Start the timing device when the flame is first applied to the specimen. After 60 seconds, remove the burner at least 150mm away from the test specimen. Record the time, in seconds, for the flame to go out. If the flame does not go past the gage mark, the requirement (see 3.10) has been complied with. The extent of burning is equal to 125mm minus the distance from the gage mark to the nearest evidence of the flame front such as charring along the upper surface of the specimen measured to the nearest 2mm."

The margins of this amendment are marked with an asterisk or vertical line to indicate where changes (additions, modifications, corrections deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

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