INCH-POUND

MIL-P-12420D
13 March 1991
SUPERSEDING
MIL-P-12420C
21 December 1971

MILITARY SPECIFICATION

PLASTIC MATERIAL, CELLULAR, ELASTOMERIC

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers expanded, unicellular, elastomeric plastic material in sheet form (see 6.1).

1.2 Classification. The plastic material shall be of the following types, classes, styles, and dimensions as specified (see 6.2 and 3.2.3).

Type I - Shock absorbent and insulation

Class 1 - Deleted (see 6.7)
Class 2 - Medium compression set
Class 3 - High compression set

Style 1 - Without mold skin
Style 2 - With mold skin on one side
Style 3 - With mold skin on both sides

Type II - Low temperature insulation

Class 4 - Low density
Class 5 - High density
Class 6 - High buoyancy

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5019 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 9330

Style 1 - Without mold skin
Style 2 - With mold skin on one side
Style 3 - With mold skin on both sides

Type III - Decorative insulation with protective skin

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

A-A-907	- Candle, Illuminating 8 Hour
PPP-B-591	- Boxes, Fiber Board, Wood-Cleated
PPP-B-601	- Boxes, Wood, Cleated-Plywood
PPP-B-636	- Boxes, Shipping, Fiberboard
PPP-B-320	- Fiberboard: Corrugated and Solid, Sheet Stock (Container Grade) and Cut Shapes

MILITARY

MIL-L-10547	- Liners, Case, and Sheet, Overwrap, Water-Vaporproof, or Waterproof, Flexible
MIL-L-35078	- Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For

STANDARDS

FEDERAL

FED-STD-191	- Textile Test Methods

MILITARY

MIL-STD-105	- Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	- Marking for Shipment and Storage

MIL-STD-147 - Palletized Unit Loads
MIL-STD-731 - Quality of Wood for Containers and Pallets

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 1667 - Flexible Cellular Materials-Vinyl Chloride Polymers and Copolymers (Closed-Cell Vinyl)
D 3574 - Flexible Cellular Materials-Slab, Bonded, and Molded Urethane Foams
D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Material. The expanded unicellular elastomeric plastic shall be a cured and expanded blend of virgin chlorine bearing vinyl resin and a butadiene acrylonitrile rubber, or other thermosetting elastomeric material, suitably compounded and processed to meet the requirements of this specification. The use of water-soluble compounding ingredients shall not exceed 3 percent (see 4.4.1.1.). The expanded plastic shall be of unicellular (closed cell) structure. Each sheet of the expanded unicellular elastomeric plastic will be allowed one blister, bubble, cut, or tear providing the defect does not cover an area greater than 2 square inches, or

extend over 2 inches in any direction. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.2.1 Physical requirements. Type I, II and III expanded uni-cellular elastomeric plastic shall conform to the physical requirements shown in table I when tested as specified in 4.4.3.

TABLE I. Physical requirements

Characteristic	Type I		Type II			Type III
	Class 2	Class 3	Class 4	Class 5	Class 6	
Tensile strength, psi, minimum:						
Initial	80	90	30	50	30	100
After aging	80	90	30	50	30	100
Elongation, percent, minimum:						
Initial	100	100	150	200	150	200
After aging	100	100	150	150	150	150
Density, lbs/ft^3						
Minimum	6	6.5	3.5	5	3.5	9.0
Maximum	8.5	8.5	6.0	7.5	6.0	14.0
Volume loss after aging;						
Percent, maximum	4	7	4	5	8	6
Weight loss after aging:						
Percent, maximum	2	2	2	2	4	2
Compression deflection, psi:						
Minimum	3	5	1.5	2	1.5	2
Maximum	6	7	3	3.5	3	6
Compression set, percent, maximum	20	30	35	25	45	30
Water absorption, percent, increase, maximum	50	50	60	50	60	50
Low temperature flexibility	-	-	1/	1/	1/	-
Fire retardance, seconds, maximum	5	5	5	5	5	5

BLE I. Physical requirements (cont'd)

Characteristic	Type I		Type II			Type III
	Class 2	Class 3	Class 4	Class 5	Class 6	
Energy absorption, inches, maximum (rebound)	10	6	-	-	-	-
Blocking scale rating, maximum	2	2	2	2	-	2
Lacquer, lifting	2/	2/	2/	2/	-	2/
Buoyancy, lbs/lb minimum	-	-	-	-	8	-

1/ Test specimens shall show no evidence of breaking or cracking after bending.

2/ There shall be no evidence of lifting, tackiness or swelling in the area of contact and there shall be no exudation of plasticizer from the test specimen.

3.2.2 Odor. The expanded plastic shall be free of objectionable odors when tested as specified in 4.4.3.

3.2.3 Dimensions. The width, length, and thickness of the expanded plastic shall be as specified in the contract or purchase order (see 6.2). The tolerance for width and length shall be minus zero, plus 4 inches. The tolerance on thickness shall be as shown in table II.

TABLE II. Expanded plastic thickness tolerance

Thickness (inch)	Plus tolerance (inch)	Minus tolerance (inch)
0.094 (3/32)	0.019	0.021
0.125 (1/8)	0.020	0.020
0.156 (5/32)	0.030	0.030
0.188 (3/16)	0.030	0.033
0.250 (1/4)	0.030	0.040
0.313 (5/16)	0.037	0.048
0.375 (3/8)	0.045	0.055
0.500 (1/2)	0.050	0.060
0.625 (5/8)	0.050	0.060
0.750 (3/4)	0.060	0.060
1.000 (1)	0.080	0.080
1.250 (1-1/4)	0.100	0.100
1.500 (1-1/2)	0.120	0.120

3.2.4 Color and finish.

3.2.4.1 Color. Unless otherwise specified (see 6.2), the color of the expanded plastic shall be at the contractor's option (except white (see 6.5)) and shall be uniform throughout. The protective skin color of type III may be a different color than the body of the expanded plastic.

3.2.4.2 Finish.

3.2.4.2.1 Types I and II. The types I and II expanded plastic shall be supplied without mold skin (style 1), with mold skin on one side (style 2) or with mold skin on both sides (style 3) as specified (see 1.2 and 6.2). When mold skin is supplied it shall form a continuous film with no more than a slight wrinkled effect permitted. Cut surfaces shall be even.

3.2.4.2.2 Type III. The type III expanded plastic shall be furnished with a continuous protective skin on one side. A definite wrinkled effect in the skin surface will be permitted. Cut surfaces shall be regular and even.

3.2.5 Marking of sheet material. The applicable National Stock Number shall be permanently and legibly placed, in contrasting color, on one side of each sheet in at least one place within 12 inches of the edge, and in numbers of not less than 1/2 inch height by means of stamping or stenciling.

3.3 Workmanship. The plastic material shall conform to the quality of product established by this specification and the occurrence of defects shall not exceed the applicable acceptable quality levels.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.3).
b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the defects specified in 4.4.2.1 and 4.4.2.2, and tested for the characteristics specified in 4.4.3.

4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.4.1.1 Certification. The requirements in 3.2, for the chemical composition of the end item, and that no more than 3 percent water soluble compounding ingredients be used in the end item, will be satisfied by the acceptance of a certificate of compliance from the supplier.

4.4.2 End item inspection.

4.4.2.1 End item visual examination. The end items shall be examined for the defects listed below. The lot size shall be expressed in units of sheets. The sample unit shall be one sheet. The inspection level shall be I, and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5.

Examine	Defect
Appearance, construction and workmanship	Any blister, bubble, crack, tear, cut, hole or gouge covering an area greater than 2 square inches or extending for a length of over 2 inches More than one blister, bubble, crack, tear, cut, hole or gouge Mold skin not as specified (when required) Protective continuous skin omitted or not as specified (applicable type III only) Rough or ragged edges Cut surfaces (when required) uneven or irregular Any lump or solid area Any evidence of tackiness
Finish	Not as specified
Color	Not uniform; not as specified
Marking	Missing, incomplete, or incorrect, not legible Not in specified location Numbers less than 1/2 inch in height Not permanent, i.e., can be easily rubbed off with moistened thumb

4.4.2.2 End item dimensional examination. The end items shall be examined for the defects listed below. The lot size shall be expressed in units of sheets. The sample unit shall be one sheet. The inspection level shall be S-3, and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
Width and length	Varies by more than minus 0 or plus 4 inches from the length or width specified

4.4.3 End item testing. The end items shall be tested for the characteristics listed in table III. The lot size shall be expressed in units of sheets. The sample unit shall be 4 square feet of sheet or slab with a minimum dimension of 12 inches 1/. The inspection level shall be S-1 except that no less than three sample units shall be selected at random throughout the lot (see 6.6). Any test failure shall be cause for rejection of the lot.

1/ If the end items in a lot are less than 1/2 inch thick, the contractor shall utilize as a sample unit one 12 by 48 by 1/2 inch piece identical in cure and composition to the lot represented. (Samples for testing may be selected from the stock material from which the sheets or slabs are cut at time of manufacture).

TABLE III. End item tests

Characteristic	Requirement reference	Test method reference Para.	Test method reference ASTM	No. of determination per sample unit 1/	Results reported To nearest
Tensile strength:					
Initial	3.2.1	4.5.9	Test E of D 3574	3	1 pound
After aging	3.2.1	4.5.9	Test E of D 3574	3	1 pound
Elongation:					
Initial	3.2.1	4.5.9	Test E of D 3574	3	10 percent
After aging	3.2.1	4.5.9	Test E of D 3574	3	10 percent
Density 2/	3.2.1		Suffix "W" of D 1667	2	0.1 lb/ft^3
Volume loss:					
After aging 3/	3.2.1	4.5.1		2	0.1 percent
Weight loss:					
After aging 3/	3.2.1	4.5.1		2	0.1 percent
Compression deflection 3/	3.2.1		D 1667	2	0.1 psi
Compression set 3/	3.2.1		Suffix "B" of D 1667	2	1.0 percent
Water absorption 3/	3.2.1	4.5.2		2	1.0 percent
Low temperature flexibility	3.2.1	4.5.3		1	Pass or fail
Fire retardance	3.2.1	4.5.4		1	1 second
Energy absorption 3/	3.2.1	4.5.5		1	Pass or fail
Blocking	3.2.1	4.5.6		3	Scale reading
Lacquer lifting	3.2.1	4.5.7		1	Pass or fail

TABLE III. End item tests (cont'd)

Characteristic	Requirement reference	Test method reference		No. of determination per sample unit 1/	Results reported To nearest
		Para.	ASTM		
Buoyancy	3.2.1	4.5.10		3	0.1 pound
Odor	3.2.2	4.5.8		1	Pass or fail
Thickness	Table II		D 1667	3	0.001 inch

1/ Where more than one determination is made per sample unit, the results shall be reported as the average of the determinations.

2/ The test specimens shall be 8 inches long, 8 inches wide and 1/2 inch thick.

3/ The thickness of the test specimens shall be 1/2 inch.

4.4.4 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2, and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling Bulged or distorted container
Content	Number per container is more or less than required

4.4.5 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1, and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

Examine	Defect
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified Interlocking of loads not as specified Load not bonded as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

4.5 Methods of inspection.

4.5.1 Volume loss and weight loss after aging test. The volume and weight loss after aging shall be determined by heating the test specimens used for the density determination in a circulating air oven for 24 hours at 158° ± 2°F. Test specimens shall be placed in the oven in a horizontal position on heavy kraft paper and care shall be taken to avoid restricting or deforming the specimens. After removal from the oven, test specimens shall be conditioned for 4 hours at a temperature of 80 ± 9°F. After conditioning the volume and weight shall again be determined and the percent volume loss and percent weight loss shall be calculated using the following formulas:

$$\text{Percent volume loss} = \frac{(V1 - V2)}{V1} \times 100$$

Where V1 = Original volume
V2 = Volume after oven aging

NOTE: Dimensions of test specimens shall be measured in accordance with ASTM procedure D 1667.

$$\text{Percent weight loss} = \frac{(W1 - W2)}{W1} \times 100$$

Where W1 = Original volume
W2 = Weight after oven aging

NOTE: Weights shall be determined to the nearest 0.1 gram.

4.5.2 Water absorption test. The water absorption shall be determined in accordance with suffix L of ASTM designation D 1667 except that the sample shall be 1/2 inch thick and the percent weight increase shall be calculated as follows:

$$\text{Percent weight increase} = \frac{(W2 - W1)}{W1} \times 100$$

Where W1 = Weight of specimen before immersion
W2 = Weight of specimen after immersion

4.5.3 Low temperature flexibility test. One test specimen 8 inches long by 1 inch wide by 5/16 ± 1/16 inch thick together with the test equipment shall be conditioned for four hours at minus 40° ± 2°F in a cold box. The low temperature flexibility shall be determined by bending the test specimen 180 degrees around a 1-inch mandrel within 5 seconds at minus 40° ± 2°F. If a dry ice cooled box is used, test specimens shall not make direct contact with carbon dioxide.

4.5.4 Fire retardance test.

4.5.4.1 Test specimen. The test specimen shall be any convenient length and shall have a cross section 1/2 inch wide and 1/4 inch thick.

4.5.4.2 Apparatus.

(a) Stop watch
(b) Standard candle conforming to A-A-907

4.5.4.3 Procedure. The test specimen shall be held horizontal with the wider cross dimension in a vertical position. The end of the test specimen shall be placed in the flame so that the flame is equally bisected horizontally by the specimen, with the end of the specimen not extending beyond the perimeter of the flame. Hold the specimen in the flame for exactly 1 minute, remove, and record the afterflame in seconds.

NOTE: If the test specimen melts or shrinks from the flame, the candle flame shall continue to be applied to the remaining end of the molten or shrunken specimen.

4.5.5 Energy absorption test. The energy absorption shall be determined by dropping a steel ball 1-1/4 inches in diameter, weighing 130 ± 10 grams from a height of 30 inches on the center of a test specimen. The test specimen shall measure 4 by 4 by 1/2 ± 1/16 inches thick. A rule shall be mounted vertically behind the specimen with the zero mark of the rule even with the top surface of the test specimen. An opaque shield shall be placed in front of the specimen with the top of the shield as high above the top of the specimen as the maximum rebound permitted in table I. The person performing the test shall sight across the top of the shield to the same height on the rule, as the ball is dropped. The material shall be considered as failing if any part of the ball is visible in this plane of sight during rebound. Prior to testing, the test specimens shall be conditioned for 4 hours at a temperature of 73 ± 2°F.

4.5.6 Blocking test. Blocking shall be determined as specified in Method 5872 of FED-STD-191, except that there shall be two sets of 4-inch square specimens, one set placed face to face and one set placed back to back; and the test shall be performed at 158 ± 2°F for a period of 48 hours.

4.5.7 Lacquer lifting test. The lacquer lifting test shall be conducted by placing a 3 by 5-inch specimen over a lacquered panel of equal or larger dimension. The specimen shall be covered with a flat glass plate and weighted with a 2-pound weight. The specimen shall be exposed for a test period of 14 days.

4.5.7.1 Preparation of panel. The lacquered panel shall be prepared by applying two medium coats of the following lacquer to a thin sheet of carbon steel which is smooth and free of grease and other foreign matter:

Ingredients	Parts by weight
Nitrocellulose	16.0
Ethyl alcohol	10.6
Dibutyl phthalate	4.0
Toluene	40.0
Butyl acetate	16.0
Ethyl acetate	8.6
Butyl alcohol	4.8

The panel shall be air dried for a minimum of 2 days prior to use.

4.5.8 Odor test. A sample of the expanded plastic shall be exposed to circulating air at 75 ± 5°F for a period of not less than 24 hours before noting the odor.

4.5.9 Oven aging test. Test specimens to be used for tensile strength and elongation after aging tests shall be exposed in a circulating air oven for 96 hours at 200 ± 2°F. The specimen shall be placed in a horizontal position on heavy kraft paper and care shall be taken to avoid restricting or deforming the specimens. After removal from the oven and before testing, the specimens shall be conditioned for not less than 4 hours at a temperature of 80 ± 9°F.

4.5.10 Buoyancy test. Three test samples 12 by 15 inches in dimension shall be weighed to the nearest 0.5 ounce. The samples shall then be secured to a frame of adequate size and of sufficient weight to submerge the samples in water in a vertical position. This assembly shall be suspended from a direct reading scale in fresh water, at room temperature, with the top of the sample 2 inches beneath the surface of the water. The scale reading (to nearest 0.5 ounce) shall be taken 30 minutes after submersion and the buoyancy calculated to the nearest 0.1 pound as follows:

$$\text{Buoyancy (pounds per pound of plastic material)} = \frac{\text{Frame weight (in water)} - \text{Frame and samples weight (in water)}}{\text{Samples weight (in air)}}$$

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A preservation. Plastic material shall be stacked flat or rolled.

5.1.2 Commercial preservation. Plastic material shall be preserved in accordance with ASTM D 3951.

5.2 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).

5.2.1 Level A packing. Plastic material preserved as specified in 5.1, shall be packed in a shipping container conforming to style RSC-L, grade V2s of PPP-B-636 or overseas type, style A, type II load of PPP-B-601. Each box shall be waterproofed with a case liner conforming to type I or type IV, grade B or F of MIL-L-10547. Each box shall be closed and reinforced in accordance with the applicable box specification. Fiberboard boxes shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Plastic material preserved as specified in 5.1, shall be packed in a shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Each box shall be waterproofed with a case liner conforming to type I or type IV, grade B or F of MIL-L-10547. Each box shall be closed in accordance with method II as specified in the appendix of PPP-B-636.

5.2.2.1 Weather-resistant shipping container. When specified (see 6.2), the shipping container shall be grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of PPP-B-636.

5.2.3 Commercial packing. Plastic material preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), plastic material packed as specified in 5.2, shall be palletized on a 4-way entry pallet in accordance with load type I or Ia of MIL-STD-147. Pallet types shall be type I (4-way entry), type IV, or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III, or IV of MIL-STD-731. Each prepared load shall be bonded with straps in accordance with bonding means C and D or film bonding means F or G. Pallet pattern shall be in accordance with the appendix of MIL-STD-147.

5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers and unit loads shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The expanded plastic is intended for use in shock absorbent containers; in Jacket, Extreme Cold Weather, Impermeable; and as a decorative insulation.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of this specification.
b. Type, class, and style required (see 1.2).
c. Issue of DODISS to be cited in the solicitation, and if required, specific issue of individual documents referenced (see 2.1.1 and 2.2).
d. When a first article is required (see 3.1, 4.3 and 6.3).
e. Width, length, and thickness required (see 3.2.3).
f. Color required (see 3.2.4.1).
g. Levels of preservation and packing (see 5.1 and 5.2).
h. Type and class of unit load required (see 5.2.1).
i. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
j. When palletization is required (see 5.3).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Part or Identifying Number (PIN). The PIN to be used for plastic sheet covered by this specification are formed as follows:

M	12420	X	X	XX
Prefix to indicate military specification	Specification number	Type number (see 1.2)	Class number (see 1.2)	Style no. (see 1.2)

6.5 Expanded plastic. Expanded plastic can be furnished in all colors except white.

6.6 Special samples. When the contract or purchase order calls for expanded plastic less than 1/2 inch thick, the contractor shall be required to furnish test specimens of the expanded plastic in 1/2 inch thicknesses for the purpose of conducting tests that require test samples 1/2 inch thick. (see table III, footnotes 2/ and 3/).

6.7 Supersession data. Type I, class 1 plastic and its requirements have been deleted since it is no longer required in the system.

6.8 Subject term (key word) listing.

Closed cell
Decorative
Expanded
Insulative
Jacket
Shock absorbent
Trousers
Unicellular

6.9 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL
Navy - OS

Preparing activity:

Army - GL

(Project 9330-1140)

Review activities:

Army - AR, ER, MD, MR
Navy - AS, YD
DLA - GS

User activities:

Navy - MC, EC

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYMMDD)
	MIL-P-12420D	1991 March 13

3. DOCUMENT TITLE
PLASTIC MATERIAL, CELLULAR, ELASTOMERIC

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)	b. ORGANIZATION
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)

e. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME	b. TELEPHONE (Include Area Code)
U.S. Army Natick RD&E Center	(1) Commercial: 508-651-4532 (2) AUTOVON: 256-4532
c. ADDRESS (Include Zip Code) Commander, U.S. Army Natick RD&E Center ATTN: STRNC-IRT Natick, MA 01760-5019	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340