TT-P-1511B
July 15, 1981
SUPERSEDING
Fed. Spec. TT-P-1511A
November 6, 1972

FEDERAL SPECIFICATION

PAINT, LATEX (GLOSS AND SEMIGLOSS, TINTS AND WHITE) (FOR INTERIOR USE)

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal Agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers latex-base paints for interior use on walls and ceilings.

1.2 Classification.

1.2.1 Types. The paint covered by this specification shall be of the following types:

Type I - Semigloss.

Class A - Tints (pastel) and whites (colors 27975 and 27778) specified by reference to Fed. Std. No. 595.
Class B - A high-hiding white (color 27925), suitable for use as is or as a tint-base (see 3.2.3 and 6.3).

Type II - Gloss.

Class A - Tints (pastel) and whites (colors 17875 and 17778) specified by reference to Fed. Std. No. 595.
Class B - A high-hiding white (color 17925), suitable for use as is or as a tint-base (see 3.2.3 and 6.3).

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

Federal Specifications:

TT-E-489 - Enamel, Alkyd, Gloss (For Exterior and Interior Surfaces).
TT-S-179 - Sealer Surface: Pigmented Oil, Plaster and Wallboard.
TT-T-390 - Tinting Medium, Concentrate General-purpose.
PPP-P-1892 - Paint, Varnish, Lacquer and Related Materials, Packaging, Packing, and Marking Of.

Federal Standards:

Fed. Test Method Std. No. 141 - Paint, Varnish, Lacquer, and Related Materials; Methods for Sampling and Testing.

Fed. Std. No. 595 - Colors.

(Activities outside the Federal Government may obtain copies of Federal

specifications, standards, and commercial item descriptions, as outlined under General Information in the Index of Federal Specifications, Standards, and Commercial Item Descriptions. The Index, which includes cumulative bimonthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

(Single copies of this specification, other Federal specifications, and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from General Services Administration Business Service Centers in Boston; New York; Philadelphia; Washington, DC; Atlanta; Chicago; Kansas City, MO; Fort Worth; Houston; Denver; Los Angeles; San Francisco; and Seattle, WA.)

FSC 8010

(Federal Government activities may obtain copies of Federal specifications, standards, commercial item descriptions, and the Index of Federal Specifications, Standards and Commercial Item Descriptions from established distribution points in their agencies.)

Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129 - Marking for Shipment and Storage.
MIL-STD-1128 - Commercial Packaging of Supplies and Equipment.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

American Society for Testing and Materials (ASTM) Standards:

D 476 - Titanium Dioxide Pigment.
D 523 - Specular gloss.
D 562 - Consistency of Paint Using the Stormer Viscosimeter.
D 1210 - Fineness of Dispersion of Pigment-Vehicle Systems.
D 1296 - Odor of Volatile Solvents and Diluents.
D 1475 - Density of Paint Varnish, Lacquer and Related Products.
D 1729 - Visual Evaluation of Color Differences of Opaque Materials.
D 1730 - Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting.
D 1735 - Water Fog Testing of Organic Coatings.
D 1849 - Package Stability of Paint.
D 2243 - Freeze-Thaw Resistance of Latex and Emulsion Paints.
D 2369 - Volatile Content of Paints.
D 2805 - Hiding Power of Paints.
D 3273 - Resistance to Growth of Mold on the Surface on Interior Coatings in an Environmental Chamber.
D 3274 - Evaluating Degree of Surface Disfigurement of Paint Film by Fungal Growth or Soil and Dirt Accumulation.
D 3450 - Washability Properties of Interior Architectural Coatings.
D 3792 - Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph.
D 97 - 45-Deg., 0-Deg. Directional Reflectance of Opaque Specimens by Filter Photometry.

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

National Motor Freight Traffic Association, Inc., Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

3. REQUIREMENTS

3.1 Materials requirements. The paint covered by this specification shall consist of the pigments and vehicle specified, so combined as to produce a ready-to-use paint, meeting all the requirements of this specification.

3.1.1 Vehicle. The vehicle shall be of the latex type, i.e., a stable aqueous dispersion of synthetic resin particles prepared by emulsion polymerization. Small additions (not in excess of 10 percent) of modifying resins may be made, provided the finished product meets all the requirements specified herein.

3.1.2 Pigments. The prime pigments shall consist of nonchalking titanium dioxide conforming to ASTM D 476, type III or IV. Suitable extender pigments may be used provided the paint meets all the requirements specified herein. Tinting pigments may be used when necessary to match the color required, provided these pigments are lightfast, alkali-resistant, and of good commercial quality.

3.1.3 Volatile matter. Organic volatile matter in the paint shall not exceed 250 g per liter of paint as applied when tested as in 4.4.14.

3.2 Qualitative requirements.

3.2.1 Condition in container. The paint as received, when tested as in 4.4.16, shall be ready-mixed and shall show no evidence of biological growth, livering, skinning, putrefaction, corrosion of the container, or hard settling of the pigment. Any settled pigment shall be readily dispersible in the liquid portion by stirring with a paddle to form a smooth homogeneous paint, free from persistent foam.

3.2.2 Odor. The odor shall not be offensive or irritating before, during, and after application when tested as in 4.4.2. There shall be no residual odor after 24 hours drying at standard laboratory conditions.

3.2.3 Color. The color of all type I, class A and type II, class A paint specified in the contract or order (see 6.2) shall be a critical match to that of the standard color chip in Fed. Std. No. 595 when tested as specified in 4.4.3. Type 1, class B and type II, class B (tint-base) shall be a critical match to the standard color chip in Fed. Std. No. 595, and shall meet the directional reflectance specified in table I.

3.2.4 Flexibility. When tested as in 4.4.4, the paint shall withstand bending without cracking or loss of adhesion.

3.2.5 Working properties. The paint, when tested as in 4.4.5 shall be easily applied by brush, roller, or spray and shall dry to a smooth, uniform film, free from lap marks, streaks, dusting, floating, mottling, orange peeling, pinholing, and other film irregularities.

3.2.6 Leveling properties. When tested as in 4.4.6, the paint shall have a minimum leveling index of 6.

3.2.7 Sag resistance. The paint shall have a minimum anti-sag index of 7 when tested as in 4.4.7.

3.2.8 Recoating properties. The paint, tested as in 4.4.8, shall produce no lifting, softening, or other film irregularities.

3.2.9 Wet adhesion. When painted panels are tested as in 4.4.9, there shall be no evidence of failure of adhesion between the topcoat and the alkyd gloss enamel underneath, using a weighted pull of not less than 750 g.

3.2.10 Washability. When painted panels are prepared and tested as in 4.4.10, the staining medium shall be substantially removed without any exposure of the undercoat. The reflectance of the cleaned area shall be not less than 90 percent of the value measured before the test and the 60 deg. specular gloss shall be not less than 70 percent nor more than 120 percent of the original gloss.

3.2.11 Alkali resistance. When tested as specified in 4.4.11, there shall be no discoloration, disintegration, or breakage of the paint film, and the

solution surrounding the film shall remain clear.

3.2.12 Freeze-thaw resistance. The paint shall withstand freeze-thaw, when tested as in 4.3.12 with a viscosity change not, greater than 5 K.U. After completion of the test, the. paint shall conform to the requirements specified in 3.2.2, 3.2.3, 3.2.5, 3.2.6, 3.2.7, 3.2.9, 3.2.10, and table I (60 deg. specular gloss, 20 deg. specular gloss, and directional reflectance).

3.2.13 Compatibility, (type I, class B, and type II, class B). When tested as specified in 4.4.13, the dried film shall show uniform color, a 60 deg. specular gloss between 30 and 60 for type I, a 60 deg. specular gloss of not less than 70 for type II, and no streaks, craters, or pigment floating.

3.2.14 Resistance to biological growth. When tested as specified in 4.4.16, the paint film shall have a surface disfigurement rating of 5 or greater. All biological growth shall be included in the evaluation of disfigurement.

3.3 Quantitative requirements.

3.3.1 The quantitative requirements shall be as specified in table I and table II.

TABLE I. Quantitative requirements

Characteristics	Requirements	
	Minimum	Maximum
Nonvolatile content, percent by weight of paint	45	--
Fineness of dispersion	6	--
Consistency, Krebs-Stormer, K.U.	75	90
Drying time of enamel		
Set to touch (minutes)	6	15
Dry hard (hours)	--	4
60 deg. specular gloss after 72 hours air drying		
Type I	30	60
Type II	70	--
20 deg. specular gloss after 72 hours air drying		
Type I	5	20
Type II	20	
Directional reflectance, 45 deg. , 0 deg. (type I, class B and type II, class B	90	--
Opacity, white only, contrast ratio when applied at 450 ft^2/gal, dry (see table II for tints)	0.95	--
Yellowness accelerated, type I, class B, and type II, class B yellowness index increase	--	0.05

TABLE II. Minimum dry film contrast ratio for tints

Apparent reflectivity, percent	contrast ratio
82	0.95
80	.96
78	.96
76	.96
74	.97
72	.97
70	.98
68	.98
66	.99
64	.99
62	.99
60	1.00
Less than 60	1.00

3.4 Surveillance requirements.

3.4.1 Storage stability. The paint, when tested as in 4.5.1, shall show no curdling, hard caking, or gummy sediment, and shall readily mix to a smooth, homogeneous state. The drying time shall be as specified in table II, and the consistency range shall be 75 to 95 K.U. There shall be no separation, agglomeration, or putrefaction.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance

of all inspection requirements specified herein.

4.2 Examination of preparation for delivery. An examination shall be made to determine compliance with the requirements of section 5. The sample unit shall be one shipping container fully prepared for delivery. Sampling shall be in accordance with MIL-STD-105. The inspection level shall be S-2 with an AQL of 4.0 expressed in terms of percent defective.

4.3 Testing of the end item.

4.3.1 Lot. The paint shall be assembled into lots as specified in MIL-STD-105. In MIL-STD-105, the words "essentially the same conditions" shall be interpreted to mean a manufacturer’s batch and defined as the end product of all raw materials mixed, blended, or processed in a single operation.

4.3.2 Sampling of the end item. For the purposes of sampling, the lot shall be expressed in units of gallons. Samples from lots shall be taken in accordance with MIL-STD-105 using inspection level S-2 and an acceptable quality level (AQL) of 2.5.

4.4 Test procedures.

4.4.1 The paint shall be tested according to the test method indicated to table III. Unless otherwise specified, standard testing conditions are a temperature of 23 deg, +/- 1 deg. C (73 deg. +/- 2 deg. F) and a relative humidity of 50 +/- 5 percent. All test reports shall contain the individual values utilize in expressing the final result. All tests shall evaluated for conformance to the requirements specified in section 3. Failure to pass any test, or noncompliance with any requirement, shall be cause for rejection of the sample.

TABLE III. Index

Characteristics	Requirement reference	Test Method		Paragraph reference
		Fed. Test Method Std. No. 141	ASTM method	
Volatile matter	3.1.3	--	D 3792	4.4.14
Condition in container	3.2.1	3011	--	4.4.15
Odor	3.2.2	--	D 1296	4.4.2
Color	3.2.3	--	D 1729	4.4.3
Flexibility	3.2.4	6221	--	4.4.4
Working properties	3.2.5	--	--	4.4.5
Leveling properties	3.2.6	--	--	4.4.6
Sag resistance	3.2.7	--	--	4.4.7
Recoating properties	3.2.8	--	--	4.4.9
Wet adhesion	3.2.9	--	--	4.4.9
Washability	3.2.10	--	D 3450	4.4.10
Alkali resistance	3.2.11	--	--	4.4.11
Freeze-thaw resistance	3.2.12	--	--	4.4.12
Compatibility	3.2.13	--	--	4.4.13
Storage stability	3.4.1	--	--	4.5.1
Nonvolatile content	Table I	--	D 2369	--
Fineness of Dispersion	Table I	--	D 1210	--
Consistency	Table I	--	D 562	--
Drying time	Table I	--	--	--
60 deg. specular gloss	Table I	--	D 523	--
20 specular gloss	Table I	--		
Directional reflectance	Table I	--	E 97	--
Opacity	Table I	--	D 2805	--
Yellowness accelerated	Table I	6132	--	--
Resistance to biological growth	3.2.14	--	D 3274 D 3273	-- 4.4.16

4.4.2 Odor. Observe the odor of the paint in a freshly opened can, during application, and of the dried film in accordance with ASTM D 1296 for compliance with 3.2.2.

4.4.3 Color. Draw down the films of the paint perpendicular to one another to assure complete hiding on a white sealed chart using a 76-[mu]m (0.003-inch) film applicator, allowing 24 hours drying time between films, and an additional 24 hours after application. Evaluate the color in accordance with ASTM D 1729

for compliance with 3.2.3.

4.4.4 Flexibility. Prepare the test panel in accordance with method 2012 of Fed. Test Method Std. No. 141. Supplement the test panel cleaning procedure with an additional cleaning with abrasive soap so that the entire surface of the panel is wet. Apply the paint in accordance with method 2162 of Fed. Test Method Std. No. 141 on the clean, dry panel with 76-[mu]m (0.003-inch) film applicator, air dry for 18 hours at standard laboratory conditions, bake for 3 hours at 40 deg. +/- 1 deg. C (105 deg. +/- 2 deg. F) then cool for 1/2 hour at standard laboratory conditions. Bend over 3.2-mm (1/8 inch) mandrel and examine in accordance with method 6221 of Fed. Test Method Std. No. 141 for compliance with 3.2.4.

4.4.5 Working properties. Prepare a 4-ft square panel of gypsum wallboard. Apply one coat of sealer conforming to TT-S-179 at a spreading rate of approximately 11 m└2┘/1 (450 ft└2┘/gal) using a 4-inch synthetic filament master grade brush; on the second part, roll a coat of the sample paint using a synthetic filament, medium pile roller; and on the third part, spray a coat at a spreading rate of approximately 11 m└2┘/1 (450 ft└2┘/gal) using a suitable spray gun. Allow to dry for 24 hours at standard laboratory conditions and evaluate for compliance with 3.2.5.

4.4.6 Leveling properties. Mix a completely filled container of the paint first by hand, and then shake for 30 seconds on a paint shaker, and immediately thereafter apply to a sealed paper chart by means of a special leveling test blade [1] designed to lay down a film with parallel ridges simulating brush marks. After allowing the completed drawdown to dry in a horizontal position for 24 hours at standard laboratory conditions, leveling of the test paint is rated by viewing the draw-down under a strong, oblique light source [2] and comparing the areas of lightness and shadow to those of a series of plastic leveling standards.[3]

4.4.7 Sag resistance. Mount a sealed test chart on the vacuum plate of an automatic film applicator. Set the Leneta Anti-Sag Meter [4] at the top of the test chart with the open side of the blade facing the operator. Place a suitable quantity of paint directly in front of the blade and draw the paint down. The completed drawdown shall then be immediately removed from the automatic film applicator and placed in a vertical position with the strip horizontal, the thinnest stripe being at the top. Allow to dry in this position at standard laboratory conditions and then determine the Anti-sag Index.

The lowest (heaviest film thickness) strip which does not touch the next lower strip is the Index stripe. Fractional values are obtained by adding to the index value fractional value based on the degree to which the stripe below the index stripe has merged with the next stripe as follows:

Degree of merger	Add
Complete (intervening black area completely wetted)	0.0
Not complete, but definitely more than half	0.2
Approximately half	0.4
Appreciable, but definitely less than half	0.6
Slight, just touching	0.8

4.4.8 Recoating properties. Recoat the dried panel prepared in 4.4.5, and repeat the procedure as indicated. Evaluate the recoating properties as applied by brush, roller, and spray for compliance with 3.2.8.

4.4.9 Wet adhesion. Prepare an aluminum panel in accordance with ASTM D 1733. Apply an alkyd gloss enamel conforming to TT-E-489 to the aluminum substrate, using a doctor blade having a gap clearance of 250 [mu]m (0.01 inch). Dry horizontally at standard laboratory conditions for 3 days, bake at 93 deg. C (200 deg. F) for 2 hours, and condition to standard laboratory conditions for 4 hours. Apply the test enamel using a doctor blade having a gap clearance of 150 [mu]m (0.006 inches). Immediately after drawdown, lay four single layers of cheese cloth, 44 mm 1.75 inches in width, onto the wet paint, saturate cheese cloth uniformly with 5 - 8 g of the test enamel and dry horizontally for 7 days at standard laboratory conditions.

Make two parallel cuts, parallel to the pull, 1 inch apart, through the cheese cloth, test paint, and alkyd gloss enamel to the substrate, and place in a tog chamber conforming to ASTM D 1735 for 30 minutes. After removal from the fog chamber, 1 inch of the cheese cloth/test paint/alkyd gloss enamel shall be stripped back from the substrate and pulled back upon itself at as close to an angle of 180 deg. as possible clamped to a 750-g weight maintaining a moist condition throughout.

4.4.10 Washability. Determine the washability of the paint in accordance with ASTM D 3450 for compliance with 3.2.10, except that the nonabrasive medium shall be used.

4.4.11 Alkali resistance. A smooth, flat, polished glass plate shall be uniformly covered with a sheet of hexafluoropropylene [5], which is then uniformly coated with a mold release agent, and allowed to dry in a horizontal position for 24 hours at standard conditions. Place a draw down blade over the coated hexafluoropropylene-glass plate combination and apply the test paint. The gap clearance of the drawdown blade shall be 0.006 inch. Allow to air dry for 48 hours in a horizontal position at standard conditions. After air drying, carefully remove the film from the substrate, turn it over and dry for additional 96 hours.

After total drying time cut free film into 12.7 by 76.2 mm (1/2 by 3 inch) strips. Place strips into glass jars filled with 1 N sodium hydroxide solution. Put these jars into an oven maintained at 60 deg. C (140 deg. F) for 3 days, after which time the jars are removed and conditioned to standard laboratory conditions for 24 hours.

Shake the jars gently and observe for compliance with 3.2.11.

4.4.12 Freeze-thaw resistance. Determine the freeze-thaw characteristic of the paint in accordance with ASTM D 2243 for compliance with 3.2.12.

4.4.13 Compatibility test (class B only). In a beaker containing 100 g of class B paint, place 2.0 g of tinting medium concentrate conforming to TT-T-390. Stir thoroughly until the tinting concentrate is evenly dispersed to a homogeneous mixture. Allow the mixture to stand undisturbed for 5 minutes. On one clear plate-glass panel, prepared in accordance with method 2021 of Fed. Test Method Std. No. 141, brush a coat of the mixture to approximately 25 [mu] (0.001 inch) dry film thickness and allow to dry at standard laboratory conditions in a vertical position for 24 hours. While brushing, observe for streaks and pigment separation. On another panel prepared in the same way, draw down a 50 [mu]m wet film thickness of the mixture. While the paint is still wet, rub an area using the Index of the finger in circular motion and continue for a minimum of 20 revolutions. Exert light pressure of the finger while rubbing so as not to rub off the film. Allow the paint film to dry at standard laboratory conditions for 24 hours. Examine the dried film, and compare the rubbed-up area against the unrubbed-up area. A difference in color, 60 degree specular gloss, or texture of the dried film between these areas shall constitute incompatibility. Evaluate for conformance with 3.3.13.

4.4.14 Volatile matter. Determine the water content of the paint in accordance with ASTM D 3792, the nonvolatile matter of the paint in accordance with ASTM D 2369 (see table III), and the weight per gallon of the paint in accordance with ASTM D 1475, and calculate the organic volatile matter of the paint using the following equation:

$$VOM = \frac{(V - W) \times L \times 454}{\left(100 - \frac{W \times L}{8.33}\right) \times 3.785}$$

Where VOM = Volatile organic matter in grams per liter applied coating
V = Percent total volatile
W = Percent water
L = Weight per gallon of paint in pounds

4.4.15 Condition in container. Examine the paint as received in accordance with method 3011 of Fed. Test Method Std. No. 141.

4.4.16 Resistance to biological growth. Determine biological growth on the surface of the paint film in accordance with ASTM D 3273. Evaluate the extent of surface disfigurement in accordance with ASTM D 3274. All fungal mycelium and spores, slime, and dirt and soil accumulation, whether opaque or transparent, shall be considered to be disfiguring agents in the evaluation. Evaluate the rating obtained for compliance with 3.2.14.

4.5 Surveillance testing.

4.5.1 Storage stability. Determine the storage stability of the paint in accordance with ASTM D 1849, except use a standard quart can lined with resin and 6 months storage under warehouse conditions and determine compliance with 3.4.1.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B, or commercial as specified (see 6.2).

5.1.1 Levels A and B. The paint shall be furnished in 1-qt or 1-gal multiple friction top containers, as specified (see 6.2), complying with the

level A or B packaging requirements of PPP-P-1892, as applicable.

5.1.2 Commercial.

5.1.2.1 Civil agencies. The paint shall be furnished in 1-qt or 1-gal containers in accordance with normal commercial practice. The complete containers shall be designed to protect the primer against damage during multiple shipments, handling, and storage.

5.1.2.2 Military agencies. The paint shall be furnished in 1-qt or 1-gal containers, as specified (see 6.2), complying with the requirements of MIL-STD-1139.

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

5.2.1 Levels A and B. The paint of like description, packaged as specified in 5.1, shall be packed in accordance with the level A and B packing requirements of PPP-P-1892, as applicable.

5.2.2 Commercial.

5.2.2.1 Civil agencies. The paint of like description, packaged as specified in 5.1, shall be packed in fiberboard boxes to insure delivery at destination; provide for redistribution by the initial receiving activity; and be acceptable by common carrier under the National Motor Freight Classification and Uniform Freight Classification.

5.2.2.2 Military agencies. The paint of like description, packaged as specified in 5.1, shall be packed in accordance with MIL-STD-1189.

5.3 Marking.

5.3.1 Military agencies. Marking shall be in accordance with MIL-STD-129.

5.3.2 Civil agencies. Marking shall be as specified in the contract or purchase order.

6. NOTES

6.1 Intended use. The latex base paints, gloss and semi-gloss covered by this specification are intended for use on interior wall and ceiling surfaces such as primed wallboard, wall paper, wood and plaster. They may be applied to new or previously painted wood, plaster, or drywall surfaces, including those of the glossy type. Glossy finishes should be dulled either by sanding or by washing with a solvent-type cleaner prior to application of the paint. All new surfaces should be primed with a primer having adequate enamel holdout.

6.2 Ordering date. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

(a) Title, number, and date of this specification.
(b) Type and class required (see 1.2).
(c) Color required (see 3.2.3).
(d) Quantities to be packaged (see 5.1).
(e) Level of packaging required (see 5.1 and 5.2).

6.3 The class B tint-base white paints are high-hiding paints which can be tinted to the desired light color before application. These paints can also be used directly as regular white paints.

[1] The Leneta Leveling Test Blade, available from the Leneta Co., Ho-Ho-Kus, NJ 07423, has been found satisfactory for this purpose.

[2] A standard oblique fluorescent light source, available from the Leneta Co., Ho-Ho-Kus, NJ 07423, has been found satisfactory for this purpose.

[3] Drawdown Levelness Standards available from the Leneta Co., Ho-Ho-Kus, NJ 07423, have been found satisfactory for this purpose.

[4] The Anti-Sag Meter is available from the Leneta Co., Ho-Ho-Kus, NJ 07423, and has been found satisfactory for this purpose.

[5] Teflon FEP 2 mil thickness (Card No. 0311, item No. 29499) from E.I. Dupont de Nemours Co., Inc. Wilmington DE 19398 is satisfactory.

Military Coordinating Activity:

Navy - YD

Custodian:

Navy - YD

Review activity

Army - ME, CE

User activity:

Navy - MC

Civil agencies coordinating activities:

GSA-FSS, PBO
DOT-AAF
POS
DCG
GPO
VA
EPA
HUD-HEP
USDA-AFS
HEP
Commerce - NBS

Preparing activity

GSA-FSS

Project No. 8010-0952

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