

[METRIC]
 A-A-2962A
 August 10, 1998
SUPERSEDING
 A-A-2962
 December 22, 1995

COMMERCIAL ITEM DESCRIPTION
Enamel, Alkyd, Exterior, Solvent based, Low VOC

The General Services Administration has authorized the use of this commercial item description as a replacement for Federal Specification TT-E-489, TT-E-527 and TT-E-529 for all federal agencies.

1.0 SCOPE. This description covers three gloss levels of lead and chromate free alkyd enamel for industrial maintenance coating on a wide range of metallic and non-metallic surfaces. Apply to surfaces that have been previously primed. Two coats are recommended for durable outdoor and indoor service. The paint shall meet current AIR POLLUTION REGULATIONS, of the Southern California Air Quality Management District, Rule 1113, Industrial Maintenance Coatings

2.0 CLASSIFICATION. There are three types and two classes.
 Type I Lusterless Class A 340 gms/L VOC
 Type II Semigloss Class B 420 gms/L VOC
 Type III Gloss

3.0 SALIENT CHARACTERISTICS.

Characteristics	Requirements			Test Methods
	Type I Lusterless	Type II Semigloss	Type III Gloss	
Volatile Organic Content ¹ Class A Class B Salt spray resistance ^{3,4}	340 g/L 420 g/L Less than 5 mm creep	340 g/L 420 g/L Less than 3 mm creep	340 g/L 420 g/L Less than 3 mm creep	EPA Test Method 24 ASTM B-117
Accelerated weathering Loss of gloss Color change Chalking	N/A <6 units* slight (max)	>65% orig'l <6 units* slight (max)	>65% orig'l <6 units* slight (max)	See Notes 3 & 5
Water resistance Adhesion loss Surface wrinkling Softening	None None None	None None None	None None None	ASTM D 3359 See Notes 3 & 6
*lightness index				
Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Engineering and Commodity Management Division (10FTE), 400 15 TH St. SW, Auburn, WA 98001.				

FSC 8010

3.0 SALIENT CHARACTERISTICS (Continued)

Characteristics	Requirements			Test Methods
	Lusterless	Semigloss	Gloss	
Total solids (wt. basis)	55% min.	55% min.	55% min.	ASTM D 1644
Total solids (vol. Basis)	38% min.	38% min.	38% min.	ASTM D 2697
Vehicle type	alkyd	alkyd	alkyd	ASTM D
* solids (N.V. wt. basis)	27% min.	40% min.	40% min.	ASTM D 2372
Gloss @ 60° (specular)	<4	15-25	>70 min. 20°	ASTM D 523
Contrast ratio (max.)	#37925 0.92	#27925 0.92	#17925 0.94	ASTM D 2805
@ 0.001" dry film thk.	#33538 0.88	#23538 0.88	#12197 0.92	
	#32246 0.90	#21136 0.90	#12199 0.88	
	#13136 0.90	#others 0.98	#13538 0.92	
	# others 0.98		#13655 0.88	
			#11105 0.92	
Viscosity (maximum)	199 secs	199 secs	199 secs	ASTM D 1200**
Flexibility	no cracking	no cracking	no cracking	ASTM D 522
Adhesion	3B rating +	3B rating +	3B rating+	ASTM D 3359
<u>Recoating</u>				
Loss of hardness.....	none	none	none	ASTM D 1474
Loss of adhesion.....	none	3B+ rating	3B+ rating	ASTM D 3359
Wrinkling	none	none	none	Visual
Drying time, to-touch	2 hrs	2 hrs	2 hrs	ASTM D 1640
Dry-through	8 hrs	8 hrs	8 hrs	" " "
Dry-hard	48 hrs	48 hrs	48 hrs	" " "
Water content (wt. basis of liquid enamel)	0.50% max	0.50% max	0.50% max	ASTM D 3792

** No. 4 Ford cup

3.1 Qualitative Requirements.

Color. This Commercial Item Description is not limited in color. If not otherwise specified in the purchase order or contract, the colors shall be a close visual match to Federal Standard 595B when applied to a black and white hiding chart until complete hiding is obtained, and tested in accordance with ASTM 1729. Black colors may be darker or "jetter" than specified.

Condition in container. The enamel shall be free from grit, seeds, skins, abnormal thickening, or "livering" in a freshly opened full can, and pigment settling shall be readily dispersible by either hand-stirring or a paint can shaker machine

Application properties. The enamel shall dry to a smooth and uniform film, free of defects of any kind, when applied in accordance with the manufacturer's recommendations.

Odor. The odor of the wet enamel and the dry film, and any interval of drying, shall not be obnoxious to a panel of three, third-party testers.

Shelf life. Products supplied under this specification shall have 18 months (minimum) useful application life, at prolonged shelf temperatures from 4°C-31°C (40°- 90° F), after delivery to the purchasing organization or user activity.

Prohibited material. The manufacturer shall certify that the offered product does not contain benzene, chlorinated solvents, hydrolyzable chlorine derivatives, any EPA Class I or II ozone depleting compound, ethylene based glycol ethers or their acetates, mercury, lead, chromate nor any carcinogen, as defined in 29 CFR 1910.1200.

4.0 REGULATORY REQUIREMENTS.

4.1 340 g/L maximum VOC, meets Rule 1113, Architectural Coatings, "Industrial Maintenance Coatings". of the South Coast Air Quality Management District (Los Angeles basin).

4.2 420 g/L maximum VOC, meets Rule 1113, Architectural Coatings, "Multi Color Coatings" of the South Coast Air Quality Management District (Los Angeles basin).

4.3 EPA Method 24 is described in 40 CFR (Code of Federal Regulations), Part 60, July 1, 1995, or later method/amendment, if superseded.

5.0 QUALITY ASSURANCE PROVISIONS.

5.1 **Responsibility for inspection.** Unless otherwise specified in the contract or order, the Contractor is responsible for the performance of all inspection requirements marked by an asterisk in the Section 3.0 table. The Government reserves the right to perform any of the requirement inspections listed under 3.0 SALIENT CHARACTERISTICS, to assure that the enamel conforms to prescribed requirements.

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5.2 Classification of inspections. Inspections shall be classified as follows:

5.2.1 Quality conformance inspection. All requirements listed under Section 3.0, or typical results may be offered for commercial products, based on earlier test results, provided they represent the same formulation and raw material sources. In case of dispute, questionable test results or questionable product quality, the Government reserves the right to require the manufacturer to demonstrate compliance to any Section 3.0 requirement, by a third party test laboratory or witness testing in the manufacturer's laboratory.

5.2.2 Inspection prior to delivery. Requirements are marked by an asterisk (*) in the table(s)

6.0 PACKAGING, LABELING and MATERIAL SAFETY DATA SHEETS (MSDS).

6.1 Packaging. Shall comply with the minimum applicable requirements in accordance with ASTM D 3951. Unless otherwise specified in the contract or purchase order, the material shall be supplied in the following size containers: 3.78 liter (1.0 gallon); 0.945 liter (1.0 quart) and 18.9 liter (5.0 gallons). Gallon and quart containers shall have resealable compression type lids. The top and bottom rims shall be compound-lined. Box packing shall be in accordance with normal commercial practice and shall be adequate to protect the product packaging in normal handling and shipping.

6.2 Labeling. Shall conform to ANSI Z129.1

Marking of containers. Each container shall be legibly marked with:

- Manufacturer's name and address
- Volatile organic content (VOC) g/L & lbs./gal
- Product number
- Generic type of coating
- Color
- Lot or batch number
- Date of manufacture (not if in lot or batch no.)
- Quantity of coating in container(s)
- Instructions for use
- Hazard warnings required by federal and state laws
- Shelf life between temperature range
- Recoat guidance
- Mixing ratios and procedures, if required

6.3 Product Technical Data. Shall be provided on a separate sheet containing, but not limited to the following information:

- Application procedures
- Theoretical volume solids
- Theoretical weight solids
- Material Safety Data Sheet (MSDS) (separate sheet)
- Storage information
- Surface preparation
- Safety information

7.0 NOTES.

Note 1. Southern California Air Quality Management District Rule 1124; excluding water and exempt solvents.

Note 2. ASTM D 2369 may alternately be used to measure the VOC limit.

Note 3. Test panels. Obtain or prepare the required number of flat (3) 76 mm x 127 mm x 0.8 mm test coupons from any flat, cold-rolled, carbon steel sheet or plate. Abrade an entire face surface with 200-grit emery paper until the panel is uniform in appearance. Degrease the surface with clean lacquer thinner. Repeat as necessary to a uniform surface appearance. Use new Emory paper on each coupon. Prevent flash rusting by placing the prepared coupons in a oven set at 65° C (150°F), until use. Cool the coupons to room temperature before application of enamel in the following test procedures.

Note 4. Accelerated weathering. Prepare three steel test coupons as described in Note 3 above. Draw down a 5-cm (2.0 inch) wide film of enamel, using a 0.0030 inch gap clearance film applicator, onto two flat aluminum panels and air dry for 7 days, between 21-23°C and between 50-60% relative humidity. Measure the 60° specular gloss and 45° and 0° luminous directional reflectance of the coating. Subject the test panels to 168 hours of Xenon Arc weatherometer exposure, without water, in accordance with ASTM G 26. The test fails if more than one panel fails.

Note 5. Water Resistance. Prepare three steel test coupons as described in Note 3 above. Apply sufficient test enamel to an unprimed steel test panel to result in a uniform 1.0 +/-0.2 mil dry film. Any method of film application may be used provided a smooth and uniform results. Permit the film to cure by air drying for 7 days between 21-23°C and between 50-60% relative humidity. Seal the edges of the paint film with melted paraffin wax. Submerge the test coupons horizontally under 2.54 cm (1.0 inch) of 23° C tap water for 24 hours, remove and sponge dry. Repeat this procedure for seven (7) cycles with no more than 15 minutes before re-immersion. The enamel fails if more than one specimen shows even slight visual indication of "whitening-clouding", softening, lifting, blistering, change in color, loss of adhesion or hardness. Hardness shall be test 24 hours after last immersion and shall be greater than 90% of a control panel's hardness when tested in accordance with ASTM D1474, Method A.

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Note 6. Hydrocarbon Resistance. Prepare three steel test coupons as described in Note 3 above. Apply sufficient test enamel to an unprimed steel test panel to result in a uniform 1.0 +/- 0.2 mil dry film. Any method of application may be used provided the film is smooth and uniform after air drying for 7 days between 21-23°C and 50-60% relative humidity. Do not seal the edges of the enamel film. Immerse the panel for 4 hours in a mixture of 70% (wt. basis) ACS reagent grades, 2,2,4-trimethyl pentane (isooctane) and 30% toluene. The test is failed if more than one test panel shows even slight visual indication of wrinkling, loss of adhesion or loss of hardness. Hardness shall be a minimum of 90% of control panel hardness when tested in accordance with ASTM D1474, Method A.

Note 7. Recoat. Using a 0.0030 inch gap film applicator, draw down a 2-inch wide film of test enamel on three clear glass panels. Permit the films to air-dry for 24 hours (dry-through) between 21-23° C and 50-60% relative humidity. Draw a 3-inch wide film of test enamel across the width of the first enamel film, using the same 0.0030 inch gap film applicator. After 24 hours at the same drying conditions, examine the enamel surfaces from the front and backside of the glass panels for compliance with the requirement. The enamel fails, if more than one panel fails the requirements measured against a control panel for adhesion (ASTM D 3359), hardness (ASTM D 1474), and visual surface wrinkling.

Document Sources.

Commercial Item Descriptions may be obtained from the Federal Supply Service Bureau (3FBP-W), Suite 8100, 470 East L'Enfant Plaza SW, Washington DC 20407.

ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshocken, PA 19428-2959. Use the most current ASTM test method to determine compliance.

Preparing Activity:
GSA-FSS

Appendix A

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Previously Qualified Products for Lusterless enamel:

The following products were previously qualified under the canceled Qualified Products List QPL-TT-E-527-28, dated February 7, 1996, and may meet the requirements of Commercial Item Description A-A-2962, which replaces Federal Specification TT-E-527 that was also canceled.

This list of previously qualified products is intended for guidance to procure lusterless enamel, and is not mandatory for procurement of commercial enamel.

Government Designation	Manufacturer's Designation	Qualification Reference	Manufacturer's Name and address
Olive Drab, 34088	Qualification is extended to colors: 30097, 30099, 30109, 30111, 30117, 30118, 31090, 33070, 33105, 34052, 34082, 34083, 34086, 34089, 34092, 34102, and 34127.		
	771-411	Q1285	Pratt and Lambert
	M5844	Q1364	Seagrave - Titanine
	O.D.34088	931149	Crawford Laboratories
Insignia Blue, 35044	Qualification is extended to color #35109.		
	F-06P193	Q1087	Seagrave - Seaguard
Black, 37038	Qualification is extended to color #37030.		
	E-8952	Q1431	Randolph Products
	F-06P191	Q1088	Seagrave - Seaguard
White, 37925	Qualification is extended to color # 37875 and other light tints.		
	771-722	Q1324	Pratt - Lambert
	E-6517	Q1177	Randolph Product
	F-06P190	Q1092	Seagrave-Seaguard
	HS527 C37925	Q1240	Spraylat

MANUFACTURER'S ADDRESS LISTING

Pratt and Lambert
P.O. Box 2153
Wichita, KS 67201
(316) 733-1361

Seagrave Coatings
Titanine Division
320 Patterson Plank Road
Carlstadt, N.J. 07072
(201) 933-1000

Randolph Products
701 12th Street
Carlstadt, NJ 07072
(201) 438-3700

Spraylat-Everseal
1701 East 122nd Street
Chicago, IL 60633
(312) 646-5900

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Previously Qualified Products for Lusterless enamel:

MANUFACTURER'S ADDRESS LISTING

Seagrave Coatings
4030 Seaguard Avenue
Portsmouth, VA 23701
(604)397-2223

Crawford Laboratories, Inc.
4165 S. Emerald Ave.
Chicago, IL 60609
(312) 376-7132

Appendix B

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Previously Qualified Products for Semigloss enamel:

The following products were previously qualified under the canceled Qualified Products List QPL-TT-E-529-37, dated November 27, 1995, and may meet the requirements of *Commercial Item Description A-A-2962*, which replaces Federal Specification TT-E-529 that was also canceled.

This list of previously qualified products is intended for guidance to procure lusterless enamel, and is not mandatory for procurement of commercial enamel.

<u>Government Designation</u>	<u>Manufacturer's Designation</u>	<u>Qualification Reference</u>	<u>Manufacturer's Name and address</u>
White, 27925 – Extends to color #27875 & other light tints (Table VII of TT-E-529)			
	775-723	Q1260	Pratt & Lambert
	E-6234	Q1116	Randolph Products
	92-793	93B049	Con-lux Coatings
	HS529C27925	Q1239	Spraylat-Everseal
Olive Drab, 24084 – Extends to colors 20061, 24052, 24064, 24097 and 20117			
	777-409	93J150	Pratt & Lambert
	E-7948	Q1116	Randolph Products
Yellow, 23538	E-8559	Q1391	Randolph Products
Black, 27038	E-6235	Q1115	Randolph Products
Red, 21136	E-9091	Q1447	Randolph Products
Blue, 25042	E-9090	Q1448	Randolph Products

MANUFACTURER'S ADDRESS LISTING

Sherwin Williams Co. d.b.a. Con-Lux Coatings 226 Talmadge Road Edison, N.J. 08818-0847 (908)287-4000	Pratt and Lambert PO Box 2153 Wichita, KS 67201 316/733-1381	Randolph Products Park Place East Carlstadt, NJ 07072 (201)438-3700	Spraylat-Everseal 1701 E. 122nd Street Chicago, IL 60633 (312)646-5900
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Appendix C

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Previously Qualified Products for gloss enamel:

The following products were previously qualified under the canceled Qualified Products List TT-E-489-47, dated January 5, 1998, and may meet the requirements of Commercial Item Description A-A-2962, which replaces Federal Specification TT-E-489 that was also canceled.

This list of previously qualified products is intended for source guidance only, and is not mandatory for procurement.

GOVERNMENT DESIGNATION MANUFACTURER	MANUFACTURER'S DESIGNATION	TEST OR QUALIFICATION REFERENCE	
Yellow, 13538 - Qualification extended to 13523, 13578, 13594 and 13655			
	91-802F	Q1315	Con-Lux Coatings
	N-5223	Q1505	Niles Paint
	N-5200	Q1569	Niles Paint
	774-310	95J158	Pratt and Lambert
	E-9953	96J111	Randolph Products
Black, 17038 -Qualification extended to 16081, 16187 and 16251			
	93-235	93DO82	Con-Lux Coatings
	B48917038	Q1497	Davlin Paint
	N-5217	Q1474	Niles Paint
	N-5079	Q1566	Niles Paint
	774-705	Q1484	Pratt and Lambert
	774-700	95J156	Pratt and Lambert
	E-9957	97B014	Randolph Products
	HS-489/17038	Q1442	Spraylat - Everseal
	972761	97K126	Parker Paint Co.
Olive Drab, 14084 -Qualification extended to 10049, 10076, 10075, 10080, 10091, 14050, 14052, 14062 and 14064.			
	93-219	93DO83	Con-Lux Coating
	9791GBF	93J151	Hentzen Coatings
	774-413	Q1303	Pratt and Lambert
	E-9954	96J110	Randolph Products
	972760	97K125	Parker Paint Co.
Red, 11136 -Qualification extended to 11105			
	91-803A	Q1514	Con-Lux Coatings
	92-5866	93A011	Con-Lux Coatings
	A-9005-00136	Q1271	Kop-Coat

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Previously Qualified Products for gloss enamel:

GOVERNMENT DESIGNATION MANUFACTURER	MANUFACTURER'S DESIGNATION	QUALIFICATION REFERENCE	
Red, 11136 -Qualification extended to 11102 cont'd...			
	N 5219	Q1472	Niles Paint
	N 5077	Q 1564	Niles Paint
	E9963	97D047	Randolph Products
	972756	97K129	Parker Paint Co.
Green, 14110 -Qualification extended to 14158, 14159, 14187, 14223, 14260 14277 and 1432			
	93-234	93D084	Con-Lux Coatings
	774-422	Q1305	Pratt and Lambert
	972484	97k127	Parker Paint Co.
Orange, 12197 -Qualification extended to 12189, 12246, 12199 and 12246.			
	92-695	92L203	Con-Lux Coatings
	N-5158	Q1568	Niles Paint
	774-203	Q1322	Pratt and Lambert
	E-9965	97K130	Randolph Products
Blue, 15045 -Qualification extended to 15042, 15044, 15045, 15050, 15056, 15092, 15102, 15123, 15177, 15180, 15181, 15182, 15200, 17100 and 17142			
	91-814	92L202	Con-Lux Coatings
	A-9005-15045	Q1184	Kop-Coat
	N-5157	Q1567	Niles Paint
	774-506	Q1208	Pratt and Lambert
	E9964	97H088	Randolph Products
	972759	97K128	Parker Paint Co.
White, 17925 -Qualification extended to 10324, 10371, 13613, 13695, 14449, 14872, 16307, 16357, 16376, 16473, 16492, 17043, 17178, 17875, 17877 and 17886 and other light colors.			
	91-29	Q1458	Con-Lux Coatings
	92-5866	93A011	Con-Lux Coatings
	B489	Q1459	Davlin Paint
	B48917925	Q1496	Davlin Paint
	A-9005	Q1159	Kop-Coat
	9891WBF	93D080	Hentzen Coatings
	N-6050	Q1565	Nile Paint
	UC65064	Q1466	PPG Industries
	774-725	Q1467	Pratt and Lambert
	774-730	85J157	Pratt and Lambert
	HS-489/17925	Q1420	Spraylat -Everseal
	854WZ1004	923099	Sherwin-Williams
	82333	96E034	Randolph Products

Previously Qualified Products for gloss enamel:

MULTIPLE ADDRESS LISTINGS

Con-Lux Coatings
226 Talmadge Rd.
Edison, NJ 08818-0847
(908) 287-4000

Hentzen Coating, Inc.
6937 West Mill Road
Milwaukee, WI 53218-1225
(414) 353-4200

PPG Architectural Finishes
One PPG Place
Pittsburgh, PA 15272
(412) 434-3131

Sherwin-Williams Co.
2802 West Miller Road
Garland, TX 75041
(214)271-2541

Davlin Paint
700 Allston Way
Berkeley, CA 94710
(425) 848-2863

Kop-Coat, Inc.
PO Box 911207
Commerce, CA 90091
(213) 560-5700

Pratt and Lambert
PO Box 2153
Wichita, KS 67201
(316) 733-1361

Spraylat -Everseal
1701 E. 122nd Street
Chicago, IL 60633
(312) 646-5900

DeVoe & Reynolds Co.
4000 Dupont Circle
Louisville, KY 40207
(800) 654-2616

Niles Chemical Paint
225 Fort Street
Niles, MI 49120
(800) 253-7389

Randolph Products Co.
P.O. Box 830
Carlstadt, N.J. 07072
(201) 438-3700

Parker Paint Mfg. Co.
3003 So. Tacoma Way
Tacoma, WA 98411
(253) 473-1122