

[METRIC]  
 A-A-3165  
August 14, 1998  
 Superseding  
 TT-L-32  
 April 30, 1969

## COMMERCIAL ITEM DESCRIPTION

### Lacquer, Gloss for Aircraft Use

The General Services Administration has authorized the use of this  
 Commercial Item Description in lieu of Federal Specification TT-L-32.  
 It is recommended that Federal Agencies use it in procurement

**1.0 SCOPE.** This description covers a durable, pigmented, high gloss lacquer for spray or hand application on primed or prepared surfaces. It conforms to AIR POLLUTION REGULATIONS.

### 2.0 COLORS.

Contrast	Federal	Contrast	Federal
Color	Std. 595B	Ratio	Color
Clear	Gardner Tube No. 3 or <		*Insignia white <sup>1</sup>
Light yellow	13655	0.86	Insignia blue
Light green	14187	0.98	Insignia red
Aircraft gray	16473	0.98	Dark O.D.
Engine gray	16081	0.98	Black (dark)
Strata blue	15045	0.98	Light blue
Int'l. orange	12197	0.96	Orange-Yellow
Maroon (dark)	10080	0.98	
			* brighter or whiter shades acceptable

### 3.0 Salient Characteristics.

Characteristics	Requirements	Methods
(1) Nonvolatile (liquid wt. basis) colors: 17038, 14084, 15044, 15042, 15045, 11136	40.0% minimum 32.0% minimum (clear - 30.0% min.)	ASTM D 1644 ASTM D 1644
(2) Pigment (nonvolatile portion)	45.0 % maximum	ASTM D 2698 or 2371
(3) Vehicle/resin <sup>2</sup> (nonvolatile portion)	55.0 % minimum 420 gms/L max. <sup>3</sup> (SCAQMD Rule 1124)	ASTM D 2372 EPA Test Method 24 <sup>4</sup> OR ASTM D 2369
(4) Volatile Organic Content (VOC)		
(5) Drying time <sup>5</sup> @ (1.0 +/- 0.2 mils "dry-to-touch" -dry film thk.) "dry-hard"	10 minutes 40 minutes	ASTM D 1640-83 ASTM D 1640-83
(6) Specular gloss @ 60° angle colors: 17875, 16473, 15042, 17038	80% minimum 75% minimum	ASTM D 523 "
(7) EPA Prohibited chemicals, attached	less than 0.06%	ASTM specific method(s)

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent to: General Services Administration, GSA Center (10FTE), Auburn, WA 98001-6599

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**3.0 Salient Characteristics.**

Characteristics	Requirements	Methods
(8) Adhesion	3B rating or better	ASTM D 3359
(9) Contrast ratio	0.98	ASTM D 2805
(10) Dilutable- comm'l lacqr. Thinner	no phasing/coagulation	Visual
(11) Self-lifting by 2nd coat (1.0 mil ea)	no wrinkles after 4 hrs.	Visual
(12) Water resistance	no whitening or defects	ASTM D 870 <sup>6</sup>
(13) Viscosity (#4 Ford cup)	20 seconds maximum	package lacquer
(14) Removal of cured lacquer	shall be removable	See Note 7, attached

**4.0 NOTES.**

<sup>1</sup> This color shall contain no tinting pigment, whatsoever.

<sup>2</sup> The manufacturer has latitude to select vehicle resin or combinations of resins which shall result in a lacquer product that meets all performance requirements of this specification.

<sup>3</sup> Less water and exempt solvents; 420 gms/L maximum meets Rule 1124, of the South Coast Air Quality Management District (Los Angeles basin).

<sup>4</sup> EPA Method 24 is described in 40 CFR (Code of Federal Regulations), Part 60, July 1, 1995, or later method/amendment, if superseded

<sup>5</sup> Standard conditions for this and all requirements are: 23° C and 50% relative humidity.

<sup>6</sup> Water Resistance: This requirement applies to all colors. Using a draw-down bar, apply a 1.0 +/- 0.2 mil dry film of lacquer onto any three (3) flat plate aluminum alloy surface, mechanically prepared, no primer allowed. Cure the lacquer film at above Note 5 conditions for 72 hours. Totally, submerge the three cured draw-down film specimens under 2.54 cm (1.0 inch) of tapwater at 23° C for 24 hours, remove and sponge dry. Repeat this test for a total of seven test cycles, with no more than 15 minutes before re-immersion. **The lacquer fails if more than one specimen, after seven cycles shows clear even subtle signs of: softening, lifting, blistering, change in color, whitening effects, loss of adhesion, loss of hardness**

<sup>7</sup> Cured lacquer, dried hard and aged for 30 days in accordance with Note <sup>5</sup> above, shall be removable, from aircraft surfaces painted with cured polyurethane paint in accordance with MIL-PFR-85285, Type I, Aircraft application. Hand-wipe using commercial "lacquer thinner" wetted, soft cotton wiping cloths or non-abrasive soft finish paper towels.

**MILITARY CUSTODIANS:**

Army -MR, MU  
Navy -AS  
Air Force -84, 85

**Preparing Activity**

GSA -FSS

**User Activity:**

Army - AV

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Appendix A (03-01-98)

**List of EPA 17 Prohibited Toxic Chemicals**  
(A Pollution Prevention Initiative)

A product label may state the product is free of the EPA list of 17 targeted toxic chemicals.

- |                                      |                                   |
|--------------------------------------|-----------------------------------|
| (1.) Benzene                         | (10.) Methyl ethyl ketone         |
| (2.) Cadmium and cadmium compounds   | (11.) Methyl isobutyl ketone      |
| (3.) Carbon Tetrachloride            | (12.) Nickel and nickel compounds |
| (4.) Chloroform                      | (13.) Tetrachloroethylene         |
| (5.) Chromium and chromium compounds | (14.) Toluene                     |
| (6.) Cyanide and cyanide compounds   | (15.) 1,1,1 -trichloroethane      |
| (7.) Lead and lead compounds         | (16.) Trichloroethylene           |
| (8.) Mercury and mercury compounds   | (17.) Xylenes                     |
| (9.) Methylene chloride              |                                   |