

[NOT MEASUREMENT  
SENSITIVE]  
FED-STD-793A  
October 15, 1998  
SUPERSEDING  
FED-STD-793  
October 30, 1985

## FEDERAL STANDARD

### DEPOT STORAGE STANDARDS

The General Services Administration has authorized the use of this federal standard by all federal agencies.

1. **SCOPE.** This standard details depot storage conditions, depot inspection instructions, and shelf-life extension criteria for GSA-managed shelf-life material (see 3.5 concerning the end user).

2. **REFERENCED DOCUMENT.** ANSI/ASQC Z1.4, Sampling Procedures and Tables for Inspection by Attributes (copies may be obtained from American Society for Quality Control (ASQC), P.O. Box 3066, Milwaukee, WI 53201-3066, ASQC Web Site, [<http://www.asqc.org>]).

### 3. GENERAL INSTRUCTIONS FOR INSPECTION.

3.1 Statistical Sampling. Sampling shall be in accordance with ANSI/ASQC Z1.4, Sampling Procedures and Tables for Inspection by Attributes, unless otherwise specified.

3.2 Shelf-Life Extension Criteria. The material shall be sampled and inspected as specified in the special instructions (Section 5) or applicable specification. Where no sampling plan exists, each inspecting service or agency shall follow their internal guidance. The material should be considered suitable for issue, and the shelf-life extended, if the number of defects does not meet or exceed the rejection number for the AQL (i.e., SQL) specified. Material failing to meet the acceptance criteria shall be disposed of in accordance with inspecting service or agency directives. For commodities not covered by Section 5, further guidance may be obtained from the cognizant GSA Center listed in Section 4.

Beneficial comments, recommendations, additions, deletions or clarifications should be sent to the General Services Administration, Federal Supply Service, Environmental and Engineering Policy Division, Washington DC 20406.
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3.3 Length of Shelf-Life Extension. The length of extension will normally be one-half of the original shelf-life. The method of calculating the new reinspection date shall be determined by the directives of the inspecting service or agency. An extension period containing a fraction of a month should be rounded up to the next whole month.

3.4 Maximum Shelf-Life Extensions at the Wholesale Level. Unless otherwise specified in Section 5, at the wholesale depot level the reinspection date of Type II (extendible) items in FSG 80 may not be extended beyond the date determined by adding 2 times the item's original shelf-life to the date of manufacture. For example, a paint in FSC 8010 with a date of manufacture of 5/95 and a shelf-life code of 6 (24 months) may not have its reinspection date extended beyond 5/99. Unless otherwise specified in Section 5, the reinspection date of Type II items in other FSG's may not be extended beyond the date determined by adding 3 times the item's original shelf-life to the date of manufacture.

3.5 Maximum Shelf-Life Extensions at the End User Level. End users may extend the shelf-life as long as the item performs satisfactorily for that user's needs. In order to minimize the disposal of functional material, end users are encouraged to examine material according to this document, or by any practical end-use related tests, to determine if the material still meets the intended use.

3.6 Inspection Results - Recommended Changes. Failure of material to pass shelf-life inspection may indicate inadequate storage conditions, or an inappropriate shelf-life code. Repeated shelf-life extensions may indicate that a longer shelf-life code should be assigned. Recommended changes to shelf-life codes should be forwarded to the GSA Center responsible for that stock class (see Section 4).

#### 4. GSA COMMODITY CENTERS.

For additional information concerning GSA managed items, contact the Commodity Center responsible for that stock class or group.

GSA	FSC's: 2310, 2320, 2330
Office of Vehicle Acquisition	4210 (fire trucks only)
and Leasing Services (FFAE)	FSG's: 24-29, 38

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Washington, DC 20406  
703-308-4670  
FAX 305-3034

GSA  
Hardware & Appliances Center  
FSS-6FET  
1500 E. Bannister Rd.  
Kansas City, MO 64131  
816-926-2784  
FAX 926-1371

FSC'S: appliances in 3510,  
4110, 4120, 4140, 7310  
and 7320  
FSG's: 51, 52, 80 and 91

GSA  
Office & Scientific  
Equipment Center  
FSS-FCG  
Washington, DC 20406  
703-305-6205  
FAX 305-7135

FSC's: 3610 and 3615  
FSG's: 66, 67, 74 (except  
calculators, typewriter covers  
and embossing machines)

GSA  
Furniture Center  
FSS-3FNE-CO  
Washington, DC 20406  
703-305-6338  
FAX 308-3658

FSC'S: 6230, 7220, 7230, 7540  
FSG'S: 71 (except frames)

GSA  
Office Supplies & Paper  
Products Center  
FSS-2FYE  
26 Federal Plaza  
New York, NY 10278  
212-264-3573  
FAX 264-3574

FSC's: 8540, 7105 (frames),  
7420 (calculators), 7430  
(typewriter covers), 7490  
(embossing machines), 9310  
FSG's: 69, 70 (disks) 75, 76  
and 81

GSA  
General Products Center  
FSS-7FXE  
819 Taylor Street  
Fort Worth, TX 76102

FSC's: 3510-3695, 4130, 7105,  
7530, 7540, 7910-7930, 8510-  
8530 and 9320-9390  
FIRE, FORG, MECA, MFFP, THDS

817-978-4403  
FAX 978-8614

FSG's: 10-23, 30-34, 37, 39,  
40, 42-49, 53-56, 59-63,  
65-66, 68, 72, 73, 77, 78,  
83, 84, 87, 88 and 94-99

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**5. SPECIAL INSPECTION INSTRUCTIONS FOR SELECTED COMMODITIES.**

5.1 FSC 6810 - Chemicals.

Inspection plan - Level S-2, SQL 4.0 percent defective.

Containers shall be secure and free from leaks, rust and other contaminants, and bulges. Markings shall be securely attached, clear and legible.

On the first reinspection, liquid products shall be homogeneous solutions with no separation, sediment, putrefaction or other degradation. Solid products shall be free flowing with no significant water absorption or other contamination.

On the second reinspection, the material shall be analyzed for the active ingredients specified on the label. If the level of active ingredients is not more than 10 percent below that specified on the label, the shelf-life may be extended once more.

Store at temperatures between 32 and 90 degrees F (0 and 32 degrees C).

5.2 FSC 6840 - Disinfectant, Disinfectant-Detergent, and Sanitizer-Detergent.

See paragraph 5.1.

5.3 FSC 6850 - Miscellaneous Chemical Specialties.

See paragraph 5.1.

5.4 FSC 7510 Inks. The following criteria apply to the subparagraphs below:

Inspection plan - Level S-3, SQL 2.5 percent defective.

Unit, intermediate, and shipping containers shall be secure and free from leaks, contaminants, dents, bulges, or other distortion. Markings on all containers shall be securely attached, clear, and legible. The ink shall be in uniform suspension with no settling or caking.

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- 5.4.1 Ink, Drawing (Waterproof, Colored), A-A-2331
- 5.4.2 Inks, Marking Stencil, Opaque (porous/non-porous) A-A-208
- 5.4.3 Inks, Stamp Pad, A-A-209
- 5.4.4 Ink, Writing Red, A-A-2749
- 5.4.5 Ink, Numbering and Dating Machine, A-A-2751
- 5.4.6 Ink, Writing For Fountain and Dip Pens, A-A-2752
- 5.4.7 Ink, Black, For Duplicating Process, A-A-2753
- 5.4.8 Ink, Stencil, Duplicating Process, Black, A-A-2754
- 5.4.9 Ink, Drawing, Waterproof, Black, A-A-2767

5.5 FSC 7510 Ribbons. The following criteria apply to the subparagraphs below:

Visual inspection plan - Level S-4, SQL 2.5 percent defective.

Unit, intermediate, and shipping containers shall be secure and free from leaks, contaminants, or significant damage. Markings on all containers shall be securely attached, clear, and legible. Ribbons of uneven weave, with frayed edges, slits, or knots shall be cause for rejection.

Performance may be evaluated by selecting one ribbon from each lot, batch or order number to test for desired characteristics. Assess the ribbon's performance in the machine for which it is specified. When used on the designated machine model, ribbons shall produce clear, clean, and legible type impressions. If performance is satisfactory, the shelf-life may be extended.

- 5.5.1 Ribbon, Printing, Cotton and Nylon, A-A-370
- 5.5.2 Single Strike Correctable Typewriter Ribbons, A-A-416
- 5.5.3 Ribbons, Typewriter, A-A-417
- 5.5.4 Ribbon, Teletypewriter, A-A-419

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5.5.5 Ribbon, Accounting Machine, A-A-4205.5.6 Ribbon, Computing Machine (Word Processing), A-A-23675.6 FSC 7510 - Tape, Pressure-Sensitive

Inspection plan - Level S-2, SQL 4.0 percent defective.  
Containers shall be secure and free from damage. Markings shall be securely attached, clear and legible.

Items procured under military specifications shall be tested for, and comply with, all specification requirements. Items bought to Federal specifications or Commercial Item Descriptions (CID's) shall be tested for the following specification requirements.

<u>Property</u>	<u>Test Method</u>
Adhesion	ASTM D3330
Holding Power	ASTM D3654
Tensile Strength	ASTM D3759
Bursting Strength	ASTM D3662 (When specified and required)
Unwind Force	ASTM D3811 (When specified and required)

Pressure-sensitive adhesive tapes deteriorate more rapidly as the storage temperature increases. These items should be issued strictly by the earliest date of manufacture. Where storage temperatures exceed 80 degrees F (27 degrees C), stock levels should be decreased and stock turn increased to minimize the storage time at elevated temperatures.

5.7 FSC 7520 Pens and Markers. The following criteria apply to the subparagraphs below:

Visual inspection plan - Level S-4, SQL 2.5 percent defective.

Unit, intermediate, and shipping containers shall be secure and free from leaks, contaminants, or significant damage. Markings on all containers shall be securely attached, clear, and legible.

Performance - select three pens/markers/refills at random from each lot, batch or order. Test the samples on a writing pad or paper under normal working conditions and temperature. Defects such as blobs, skips, dotting and density variations of line intensity in any of the samples shall constitute failure.

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- 5.7.1 Pen, Rollerball, A-A-2695
- 5.7.2 Marker, Tube Type, Fine Tip, Transparency, A-A-2756
- 5.7.3 Marker, Tube Type, Felt Tip (Permanent Ink), A-A-2758
- 5.7.4 Marker, Tube Type, Fine, Felt Tip A-A-2778
- 5.7.5 Marker, Tube & Flat Type (Fluorescent/Non-Fluorescent),  
Highlighter, A-A-2779
- 5.7.6 Pen, Rubberized Barrel, A-A-2905
- 5.7.7 Pen, Rubberized Barrel, Refills, A-A-2906
- 5.7.8 Pen, Ballpoint, Non-Refillable, A-A-2907
- 5.7.9 Pen, Ballpoint (Recycled), A-A-2915
- 5.7.10 Pen, Ballpoint, Refillable, A-A-2916
- 5.7.11 Marker, Tube Type, Permanent (Solvent-Based Ink), A-A 2960
- 5.7.12 Marker, Assortment, Tube Type, A-A-2942
- 5.7.13 Marker, Tube Type, White, A-A-356
- 5.7.14 Pen, Ballpoint, Cushion Grip, Various Types, A-A-3167
- 5.8 FSC 7520 Letter Set, Polystyrene, A-A-2827.

Inspection Plan - Level S-2, SQL 4.0 percent defective.

Unit, intermediate, and shipping containers shall be secure and free from leaks, contaminants, or significant damage. Markings on all containers shall be securely attached, clear, and legible. Select one set from each lot, batch or order to verify desired performance. Randomly select several letters from the set and affix them to the plastic strips in accordance with the manufacturer's instructions. If the adhesion is satisfactory on test sample after eight hours, the shelf life may be extended.

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Pressure-sensitive adhesive backed letters deteriorate more rapidly as the storage temperature increases. These types of items should be issued strictly by the earliest date of manufacture.

Where storage temperatures exceed 80 degrees F (27 degrees C), stock levels should be decreased and stock turn increased to minimize the storage time at elevated temperatures.

#### 5.9 FSC 7930 - Cleaning and Polishing Supplies.

Inspection Plan - Level S-2, SQL 4.0 percent defective.

Containers shall be secure and free from leaks, rust and other contaminants, and bulges. Markings shall be securely attached, clear and legible. Liquid products shall be homogenous solutions with no separation, sediment, putrefaction or other degradation. Solid products shall be free flowing with no significant water absorption or other contamination. Store at temperatures between 40 and 80 degrees F (4 and 27 degrees C).

#### 5.10 FSC 8010 - Two Component Coating Systems.

Inspection plan - Level S-2, SQL 4.0 percent defective.

Containers shall be secure and free from leaks, bulges, rust and other contaminants. Markings shall be securely attached, clear and legible. Pigmented components shall be free from grits, seeds, lumps, abnormal thickening or livering, and shall not show pigment flotation or excessive settling which cannot be easily reincorporated to a smooth, homogeneous, pourable condition.

Unpigmented components shall show no trace of particulate matter, either suspended in solution or settled on the inner surface of the container, which cannot be readily dispersed by agitation. Mixing shall be accomplished by hand, power stirrer, or by an automatic shaking device, and shall be completed within 5 minutes of the purchase document requirement.

Materials shall be stored at temperatures between 35 and 115 degrees F (2 and 46 degrees C).

#### 5.11 FSC 8010 - One Component Pre-Mixed Coatings (paints, lacquers, enamels, etc.).

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Inspection plan - level S-2, SQL 4.0 percent defective.

Containers shall be secure and free from leaks, bulges, rust or other contaminants. Markings shall be securely attached, clear and legible. There shall be no hard settling, caking, jelling, skinning, curdling, seeding, rusting or other reaction with the container, putrefaction, separation or other condition which prevents the material from being mixed with an automatic shaking device or with a power stirrer to a smooth and homogeneous state, and without air bubbles. Mixing shall be completed within 5 minutes for 1-gallon and smaller containers, and within 10 minutes for 5-gallon containers.

Material in self-pressurized aerosol dispensers shall be mixable following label directions, and the product shall be able to spray and deposit a uniform film. The product shall be brushed out or sprayed, and shall meet the dry time, application properties, and visual evaluation of gloss and color to the requirements of the purchase document. Any products showing significant deviation from the specified requirements should be laboratory tested to verify the results.

Water-thinned products shall be stored at temperatures between 40 and 115 degrees F (4 and 46 degrees C). Solvent-thinned products shall be stored between 0 and 115 degrees F (-18 and 46 degrees C), except for the following:

<u>Specification</u>	<u>Storage Temperature Range</u>
MIL-P-15931	35-115 degrees F (2-46 degrees C)
MIL-C-83231	35-100 degrees F (2-38 degrees C)
MIL-C-83445	35-100 degrees F (2-38 degrees C)
TT-P-2756	35-115 degrees F (1.7-46 degrees C)

#### 5.12 FSC 8030 - Sealants.

Inspection plan - Level S-2, SQL 1.5 percent defective.

Containers shall be secure and free from leaks, bulges, rust or other contaminants. Markings shall be securely attached, clear and legible. There shall be no separation, layering, or settling that will not disperse to a homogeneous mixture when mixed. There shall be no conditions not typical for the product, such as lumps or inclusions. The viscosity and drying or cure time shall

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be no more than 10 percent above or below specification limits. Store in temperature and humidity controlled space. Unless otherwise specified on the package, temperatures shall not exceed 60 degrees F (16 degrees C), and the relative humidity shall not exceed 50 percent.

5.13 FSC 8040 - Adhesives.

See paragraph 5.12.

6. **KEY WORDS:** depot shelf storage  
life shelf-life

Military Coordinating Activity:

Preparing Activity:

SO

GSA-FSS