INCH-POUND
A-A-52465
June 9, 1993
SUPERSEDING
MIL-P-62669(AT)
15 May 1991

COMMERCIAL ITEM DESCRIPTION

PRIMER COATING, SYNTHETIC, VOC COMPLIANT (FOR BRAKE DRUMS)

The General Services Administration has authorized the use of this commercial item description (CID) as a replacement for MIL-P-62669(AT) which is cancelled.

1. SCOPE. This CID covers a VOC compliant, synthetic primer coating that is intended for brush or spray application to a 0.4 - 0.6 mils dry film thickness on the exposed metal surfaces in the internal areas of brake and clutch assemblies in tank-automotive use.

2. SALIENT CHARACTERISTICS

2.1 Description. The primer coating shall be corrosion-inhibiting, quick- drying, lead and chromate free, and contain no more than 3.5 pounds per gallon of volatile organic compounds (VOC).

2.2 Materials. Unless otherwise specified herein, the materials used shall be in accordance with the manufacturer's material specifications for synthetic primer coating. The use of recovered materials made in compliance with regulatory requirements is acceptable providing that all requirements of this CID are met (see 5.5).

2.2.1 Pigment. The pigment portion of the primer shall consist of red or brown iron oxides (Fe_20_3), zinc phosphates (Zn_2P0_4), anti-corrosive pigments, extender pigments, and acid insoluble siliceous material.

Beneficial comments, recommendations, additions, deletions clarifications, etc. and any other data which may improve this document should be sent by letter to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000.

AMSC N/A FSC 8010

2.2.2 Vehicle. The resin shall be a blend of an oil modified alkyd resin and a dispersion type of phenolaldehyde resin. Necessary amounts of driers, volatile solvents, anti-oxidants, wetting agents, and stabilizers may be used. The volatile material shall contain no benzene, methanol, chlorinated hydrocarbons, or other solvents of a highly toxic nature.

2.2.3 Content requirements. Water content shall be less than 1 percent (%) by weight of the primer. The amount of phthalic anhydride shall not be less than 25.0% by weight of the vehicle solids. Coarse particles and skins shall be less than 0.5% by weight of the pigment.

2.3 Performance.

2.3.1 Primer condition. The primer shall be free from seediness, gumminess, skinning, livering, curdling, hard caking, and grit when the container is opened before agitation. The same conditions shall remain when stored up to 7 days at temperatures from 0 to 140 degrees Fahrenheit (°F). After storage, pigment settling and light caking shall be easily and completely reincorporated to a smooth homogeneous state by stirring.

2.3.2 Isolation of vehicle. The total solids in a sample of primer shall be no less than 70.3% by weight. The vehicle solids shall be no less than 19.0% and the pigments solids between 50.3% and 53.0%. The pigment volume shall be no more than 45% of the total solid volume.

2.3.3 Drying time. Primer painted on a glass panel to a wet film thickness of 1 mil shall dry to a tacky texture in 3-6 minutes, shall be dry-to- touch in no more than half an hour, and shall be fully cured within 72 hours.

2.3.4 Painted properties. Unless otherwise specified, requirements given in this section shall be for primer that has been painted on clean steel panels to a dry film thickness of 0.4 to 0.6 mils. Methods specified shall then be followed. This film of primer shall be hard, tough, difficult to furrow off, and resistant to water and hydrocarbon fluid.

2.3.4.1 Adhesion. Allow the panel to air-dry for 1 hour, then score a line through to the metal with a sharp pointed knife. Apply water resistant, pressure sensitive adhesive tape across and perpendicular to the score line for 10 seconds before rapidly stripping off. There shall be no primer removal by the adhesive tape beyond 0.0625 inch on either side of the score line.

2.3.4.2 Flexibility. Determine flexibility in accordance with method 6221 of FED-STD-141. Allow the panel to air-dry for 30 minutes, bake for 24 hours at 221 $\pm$ 4°F, then condition as specified. Use the “1/4 inch” mandrel. The film of the primer shall withstand bending without cracking or flaking.

2.3.4.3 Wearability. Determine wearability in accordance with method 6192 of FED-STD-141. Allow the panel to air-dry for 72 hours, then run the test for 250 cycles using CS-17 wheels and a 1000 gram load on each wheel. Primer shall be completely worn away and definite evidence of powdering shall be observed.

2.3.5 Reduced properties. When reduced 3:1 (one part thinner), allowed to stand 24 hours, then agitated, the primer coating shall completely redisperse to a smooth homogenous state. The first break in a stream of reduced primer flowing from a #4 Ford viscosity cup shall take 60 $\pm$ 5 seconds. When sprayed on a steel panel to a dry film thickness of 0.4 to 0.6 mils, it shall not run, sag, or streak when wet. When dried, it shall show no dusting, mottling, or color separation and shall present a smooth, uniform finish free from seediness.

2.3.6 Salt spray resistance. Steel panels sprayed with the reduced primer (see 2.3.5) shall be air-dryed for 96 hours. After a 24 hour salt spray test, no more than a trace of rust and no more than five scattered blisters, none larger than one millimeter, shall be found. After stripping the primer with a lacquer thinner, there shall be no more than a trace of rusting, pitting, or corrosion of the steel underneath.

2.3.7 Unit container sizes. The primer shall be furnished in either one quart, one gallon multiple-friction top containers, five gallon lug covered steel pails, or in 55 gallon steel drums (see 5.3).

2.3.8 Material Safety Data Sheet (MSDS). The contractor shall prepare an MSDS when required to comply with the provisions of FED-STD-313 (see 5.2).

3. QUALITY ASSURANCE PROVISIONS

3.1 Responsibility for inspection. The contractor is responsible for the performance of all inspections (examinations and tests).

3.2 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product conforms to the producer's own drawings, specifications, workmanship standards, and quality assurance practices. Items with known defects shall not be submitted for Government acceptance. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

4. PRESERVATION, PACKAGING, PACKING, LABELING, AND MARKING.

Preservation, packaging, packing, labeling, and marking for the desired level shall be as specified in the contract or order (see 5.2).

5. NOTES

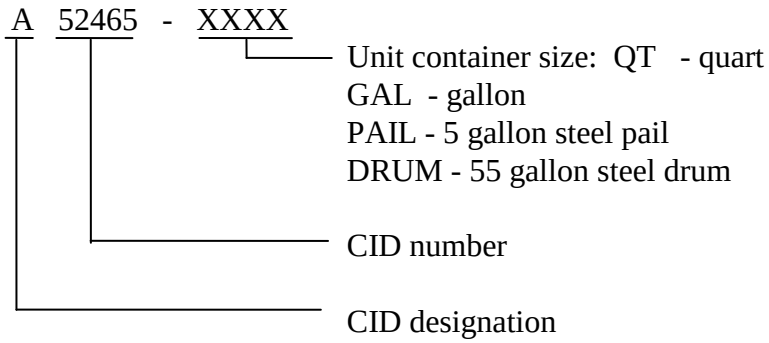
(This section contains information of a general or explanatory nature that maybe helpful, but is not mandatory.)

5.1 Addresses for obtaining copies of Government specifications and standards. FED-STD-141, Paint, Varnish, Lacquer and Related Materials: Methods of Inspection, Sampling and Testing and FED-STD-313, Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities are available from Navy Publications and Printing Service Office, Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

5.2 Ordering data. Acquisition documents must specify the following:

a. Title, number, and date of this CID.
b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced.
c. Unit container size, quantity, and PIN.
d. When applicable the mailing address of the activities requiring copies of the MSDS and the number of copies required.
e. Selection of applicable level and packaging requirements.

5.3 Part or Identification Number (PIN). The PIN to be used for the synthetic primer coating acquired to this CID is created as follows:



5.4 Cross-reference data. Synthetic primer coating conforming to this CID is substitutable or interchangeable with synthetic primer coating conforming to MIL-P-62669(AT), dated 15 May 1991.

5.5 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

5.6 Metric products.

a. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of ASTM E380, and all other requirements of this CID are met.
b. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable.
c. The contracting officer has the option of accepting or rejecting the product.

Custodian:
Army - AT

Preparing Activity:
Army - AT

Review Activities:
Army - ME, SM

(Project 8010-0511)