[METRIC]

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COMMERCIAL ITEM DESCRIPTION

INK, BLACK, FOR DUPLICATING PROCESS

This Commercial Item Description is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies. This document supersedes Federal Specification TT-I-548, which is cancelled.

1. SCOPE AND CLASSIFICATION

- 1.1 Scope This commercial item description covers ink intended to operate satisfactorily on any plates used in the offset duplicating process under conditions normally existing in government activities.
- 1.2 Size The ink shall be supplied in containers commercially used for this purpose as specified in Section 9 (Notes).
- 1.3 Colors The ink shall be furnished in black or as specified in section 9 (Notes).

2. SALIENT CHARACTERISTICS.

- 2.1 Material The manufacturer is given a wide latitude in the selection of materials and processes of manufacture provided the ink meets the requirements of this commercial item description.
- 2.2 Description Offset ink is a soft solid-like plastic material in which pigments have been dispersed. The ingredients composing the inks shall be free from impurities that may affect the use and storage of the finished product. The product shall be ready for use, as received, without further additions. The working properties of an offset ink include its ability to be fed from the press ink fountain, to transfer properly from roller to roller in the inking system, and to the plate, blanket, and surface being printed. These functions are incorporated into the printing tests in accordance with ASTM F413 and ASTM F506.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

- 2.3 Condition in container * From visual examination while stirring, the material should be soft plastic-like ink having no skins and lumps, free from impurities, and should show no more pigment caking than can be readily reincorporated to a smooth homogeneous state.
- 2.4 Printability Physical properties of the ink shall be balanced so that it will not mist or fly off the rollers; it will print sharp, clean lines and halftones; will not scum or tint; will not pull the sheets out of the grippers; cause distortion or curl; pick the paper surface; or tear the sheet (See section 3.1).
- 2.5 Setting and Bleeding The ink when printed on 40 pound white bond paper shall set rapidly and dry within four hours to a hard, non-smutting condition.
- 2.6 Scumming and bleeding The ink shall be no showthrough or loss of half tone detail from a 140 line halftone master.
- 2.7 Pigment grind There shall be no coarse particles or undisposed agglomerates which might cause piling or caking on the press rollers, plates and blankets; wear of plate images, filling in of halftone or scumming. Fineness of grind shall not be less than 5 on the Hegman fitness of grind gage (see 3.2)
- 2.8 Color The ink shall give a jet black impression when printed on 40 pound white bond paper.
- 2.9 Tack The ink shall maintain a relatively constant tack over a period of at least seven hours. When measured with an inkometer, the ink shall start with a tack between 10 and 20 at 400 RPM and shall not exceed 25 after seven hours (see 3.3).
- 2.10 Shelf Life The items shall have a shelf life of one year after delivery and shall be capable of withstanding normal usage and handling and pass the Printability test (see section 3.1).
- 2.11 Workmanship The ink shall be free from defects or imperfections of manufacture which may affect its durability, appearance, serviceability or present a hazard to the user.

3. TEST METHODS

- 3.1 Printability When tested in accordance with ASTM F413 and ASTM F506.
- 3.2 Pigment grind Fineness of grind shall not be less than the NPIRI equivalent of 5 on the Hegman fitness of grind gage when tested in accordance with ASTM D1316.
- 3.3 Tack The tack shall be tested in accordance with ASTM D-4361.

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4. REGULATORY REQUIREMENTS.

The offerer/contractor is encouraged to use recovered materials in accordance with Public Law 94-580, as amended, to the maximum extent practicable.

5. HAZARDOUS MATERIAL REQUIREMENTS.

- 5.1 Toxicity. Use of any toxic substance must be in accordance with all applicable federal statutes. The use of any known carcinogens as ingredients is prohibited. The harmful substances shall be defined as the poison and injurious substances as designated in Fed Std. 313. The vendor shall prepare a certification that the inks conforms to the above requirements.
- 5.2 Material safety data sheets. Safety data shall be furnished in accordance with Fed. Std. 313. The pertinent government mailing addresses for submission of data are listed in appendix B of Fed. Std. 313.
- 5.3 Labeling. Containers shall be labeled to comply with the "Federal Hazardous Substances Act Regulations", 16 Code of Federal Regulations, Part 1500.

6. QUALITY ASSURANCE REQUIREMENTS.

- 6.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order (see section 9), the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.
- 6.2 Lot definition. Each lot of inks shall be inspected for conformance to the requirements herein. Inspection shall be in accordance with MIL-STD-105 using the sampling plans specified below. The lot shall be expressed in inks manufactured from the same materials, at essentially the same time.
- 6.3 Examination of the end item for visual defects. The sample unit for this examination shall be one container of ink. A random sample shall be taken from each lot in accordance with Inspection Level S-3. The AQL shall be 2.5 percent defective. Samples shall be examined for defects listed below. Any container of ink containing one or more defects shall be rejected.

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<u>Examine</u> <u>Defects</u>

Workmanship See Workmanship paragraph

Material Not as specified

Appearance Spillage of ink or leakage on outside

of the container. Container not

clean.

Design Container not as specified.

6.4 Examination of the end item for dimensional defects. The sample unit for this examination shall be one container of ink. A random sample shall be taken from each lot in accordance with Inspection Level S-2. The AQL shall be 4.0 percent defective. Samples shall be examined for defects listed below. Any ink containing one or more defects shall be rejected.

<u>Examine</u> <u>Defects</u>

Quantity Not as specified

Fill of containers Empty or broken containers; fill not

as specified.

6.5 Sampling of end items for performance tests. Sampling for performance testing shall be performed in accordance with MIL-STD-105. The sample unit shall be one container of ink. A random sample from each lot in accordance with Inspection Level S-1. The AQL shall be 4.0 percent defective.

- 6.5.1 Initial Performance Testing. The ink will be performance tested in accordance with paragraph 2.4 for each lot delivered.
- 6.6 Packaging, Packing, and Marking. Inspection Level S-2 with an AQL of 4.0 percent defective. The sample unit shall be one fully prepared shipping container inspected for conformance with the requirements of section 7.

7. PREPARATION FOR DELIVERY

- 7.1 Unless otherwise specified (see section 9), preparation for delivery shall conform to normal commercial practice.
- 7.2 All packages shall be marked to show month and year of manufacture.
- 7.2.1 Packaging, and packing. Packaging, and packing shall be as indicated below, unless specified otherwise in the contract or purchase order (see section 9). The normal commercial number of unit packages shall be packed in a close-fitting fiberboard box used commercially for this item. The complete pack shall be in compliance with the Uniform Freight Classification and the National Motor Freight Classification. The weight of the shipping container shall not exceed 65 pounds.

- 7.2.2 Marking. Marking shall be as indicated below, unless specified otherwise in the contract or purchase order (see section 9).
- 7.2.2.1. For Shipment To Civil agencies. In addition to any special marking required by the contract or order, interior packages and exterior shipping containers shall be marked in accordance with Fed. Std. No. 123. Bar code marking is required, unless specified otherwise (See section 9).
- 7.2.2.2 For Shipment To Military activities. In addition to any special marking required by the contract or order, interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129. Bar code marking is required, unless specified otherwise (See section 9).
- 7.2.2.3 Additional marking. The unit and shipping containers shall include the date of manufacture and the date of reinspection (12 months after the date of manufacture) and the shipping containers, in addition, shall include any precautionary marking required by the National Motor Freight Classification Item 222, Uniform Freight Classification Rule 41, and Department of Transportation regulations.

8. APPLICABLE DOCUMENTS.

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

8.1 Public Law and Code of Federal Regulations:

Code of Federal Regulations and Federal Acquisition Regulations are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Public Law 94-580 - Use of Recovered Materials

- 16 CFR Part 1500 Federal Hazardous Substances Labeling Act.
- 8.2 National Motor Freight Traffic Association, Inc. Agent:

National Motor Freight Classification

Application for copies should be addressed to the American Trucking Associations, Inc., Tariff Order Section, 1616 P Street, N.W. Washington, D.C., 20036.

8.3 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, Illinois 60606.

8.4 Federal Standards, Specifications, and Commercial Item Descriptions:

Federal standards and specifications are available from GSA Business Service Centers and Specification and Consumer Information Distribution Section, Building 197, Washington Navy Yard, Washington DC 20407.

Single copies of this specification and other specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Regional Offices in Boston, New York, Washington, D.C., Atlanta, Chicago, Kansas City, Mo., Fort Worth, Denver, San Francisco, Los Angeles, and Auburn, Washington.

FED-STD-123 Marking for Domestic Shipment (Civil Agencies)

FED-STD-313 Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities.

8.5 Military Standards:

Military Standards are available from the Standardization Documents Order Dept. Bldg. 4D 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes.

MIL-STD-129 Marking for Shipment and Storage.

8.6 American Society For Testing Materials (ASTM):

ASTM standards are available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM F413. Standard Practice for the preparation of an offset duplicator for use in functional testing of lithographic copy products.

ASTM F506. Standard practice for assessing the quality of Direct-Image paper offset Masters.

ASTM D4361. Standard test method for apparent tack of printing inks and vehicles by the inkometer.

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ASTM D1316. Standard test method for the fineness of grind of printing inks by the NPIRI Grindometer.

8.7 NPIRI National Printing Ink Research Institute Francis MacDonald Sinclair Memorial laboratory LeHigh University
Bethlehem Penn 18015

Standard test method for the fineness of grind of printing inks by the NPIRI Grindometer.

8.8 NAPIM National Association of Printing Ink Manufacturers 47 Halstead Ave.
Harrison N Y 10528

9. NOTES.

Ordering information. Purchasers should select the required options permitted herein, and include the following information in procurement documents:

- 9.1 Title, number, and date of this commercial item description.
- 9.2 Purchasers shall indicate size of container.
- 9.3 Purchasers should specify arrangement for inspection and inspection facilities, if other than specified
- 9.4 Purchasers should specify packaging, packing,
- 9.5 and any special marking for shipment, if other than required (See section 7).
- 9.6 Identification marking, if other than required.
- 9.7 If bar code marking is required.
- 9.8 MSDS's required, in addition to those required by Fed-Std-313.
- 9.9 Purchasers should specify palletization , if required.

MILITARY INTERESTS:

Preparing Activity: GSA-FSS

NONE: DOD has determined that no military activity has an official interest in this commercial item description.