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Superseding
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COMMERCIAL ITEM DESCRIPTION
PENCIL, ELECTROGRAPHIC

The General Services Administration has authorized the use of this commercial item description, for use by all federal agencies.

1. **Scope.** This Commercial Item Description covers wood-cased electrographic lead pencils used in test scoring and mark sensing on electrographic equipment.

2. **Salient Characteristics:**

2.1 Wood cased electrographic pencils shall be round, hexagonal or oblong shaped with a high conductivity black graphite lead mixture and shall produce smooth, clear, even and uniform writing. Additionally, the leads shall not crumble or dust and be easily erasable when used with suitable rubber, art gum or plastic erasers.

2.2 The pencil leads shall be centered within the casing and securely bonded (glued) throughout its entire length, the two halves securely bonded and in conformance with normal commercial practice. When sharpened the wood casing shall not split, splinter or tear, shall present a smooth finish, and the lead shall not crumble or break.

2.3 Pencils without erasers shall not be less than 17.5 cm (6 7/8 inches) long and with erasers shall not be less than 17.8 cm (7 inches) long. Erasers shall be provided in accordance with commercial item description A-A-132 when specified in the order or contract.

2.4 Pencils shall be marked with the manufacturer's name or trademark, lead hardness designation, (if specified in section 8) and designated as an electrographic pencil and the color of the case shall be in accordance with normal commercial practice.

2.5 The hardness range shall be expressed as a "grade" as defined by ASTM C709 and designated as one of the following:

6H, 5H, 4H, 3H, 2H, H, F, HB, B, 2B, 3B, 4B, 5B, 6B

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to General Services Administration, Federal Supply Service, Engineering Branch, 26 Federal Plaza, New York, NY 10278.

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The hardness of the lead shall be such that no inversion shall take place as the density transits from 6H to 4B for the leads of the same brand. The grades and lack of inversions shall be certified by the vendor to be in conformance with normal commercial practice. The evidence of this conformance shall be available to the government in the form of a chart of line densities for the full range of grades, upon request.

2.6 Length. Measurements shall be made once per each specimen selected, using a device with a precision of at least 0.1 mm.

2.7 Workmanship. Pencils shall be free from defects which affect the serviceability or appearance.

3. Regulatory Requirements: The offerer/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4. Quality Assurance Requirements:

4.1 Product Conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards and quality assurance practices and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

4.2 Examination and Testing.

4.2.1 Suppliers are encouraged to use quality control (QC) techniques that exhibit control over their processes (e.g. (Statistical Process Control) SPC Techniques) as defined in American National Standards Institute (ANSI) Z1.1, Z1.2 and Z1.3 / American Society for Quality Control (ASQC) B.1, B.2 and B.3 that systematically reduce excess variations. If used, objective evidence shall be available that demonstrates overall measurement adequacy techniques and controls. These techniques shall ensure quality levels equal to, or greater than, those cited in applicable technical document or, herein.

4.2.2 End item inspection/testing may be used by the offeror or the Government representative, as a means to determine the effectiveness of the in process quality controls. While in process controls shall not be substituted for end item performance testing they may be used in lieu of visual and dimensional inspections

4.2.3 For those characteristics for which there are no such controls, or for end item performance test, lot by lot sampling for inspection shall be required. The sample unit shall be one pencil. Sampling shall be in accordance with the American National Standards Institute (ANSI) / American Society for Quality Control (ASQC) Z1.4, Sampling Procedures and Tables for Inspection by Attributes.

4.2.4 An inspection lot shall consist of all like items submitted for inspection at one time. The inspection level for visual, and dimensional shall be S-1 with an AQL of 4.0 percent defective. The inspection level for performance testing shall be S-4 with a AQL of 4.0 percent defective. The supplier must provide objective evidence (tests and inspection records) that the presented material meets the requirements of the sampling plan as indicated above.

5. **Performance Testing:** Unless otherwise specified, the tests shall be conducted in an atmosphere of $23^{\circ}\text{C} \pm 1.1^{\circ}\text{C}$ ($73.5^{\circ}\text{F} \pm 2^{\circ}\text{F}$). Test paper shall be in accordance with A-A-2804A, type III white bond paper having a pH average of not less than 5.0 with a basis weight of 75 grams per square meter (20 pound, 17 x 22 - 500). Alternately, paper conforming to JCP-O-60 can be used as an alternate source.

5.1 **Lead Point Breaking Strength.** The point break of the electrographic lead shall be determined by sharpening the point having diameters between .12 cm and .13 cm (.049 and .050 \pm .001 inch). After being pointed to the required diameter the pencil shall be placed in a rigid holder set to maintain a constant angle of 45° between the pencil and the platform. The pencil shall extend beyond the underside of the block 3.2 cm to 3.8 cm (1 1/4 to 1 1/2 inches), measured along the pencil to the sharpened point. The scale platform shall be smooth and offer practically no resistance to the point moving across its surface. Pressure shall be applied by pushing the rod down gradually and uniformly in order to avoid variations and shock. If a lead crumbles, it shall be cause for rejection. Splintering or shattering of leads at offset of tests shall be cause for rejection. Readings shall be taken at the instant of breaking, provided the point break is definite and does not develop into a general crumbling. Not less than four pencils shall be used and each pencil shall be subjected to not less than four tests. The point strength of the leads shall be the average of all determinants.

6. **Packaging:**

6.1 Preservation, packing, and marking shall be specified in the contract or order.

7. **Notes:**

7.1 **Source of Documents.** Issues of the following documents, in effect on the date of invitation for bids or request for proposal form a part of this document to the extent specified herein.

7.1.1 Federal Acquisition Regulation (FAR) may be obtained from the Superintendent of Documents, Government Printing Office, Washington, DC 20402.

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7.1.2 Application for copies of (ANSI) Z1.1, Z1.2 and Z1.3 and (ASQC) B.1, B.2 and B.3 may be obtained from the American Society for Quality Control, PO Box 3005, 611 E. Wisconsin Avenue, Milwaukee, WI 53201-4606.

7.1.3 Federal Standards and Specifications may be obtained from the General Services Administration Specifications Section (3FBO-W) in Suite 8100 at 490 L'Enfant Plaza, SW Washington DC 20407.

7.1.4 Copies of appropriate ASTM's may be obtained from the American Standards for Testing Materials at 1916 Race Street, Philadelphia, PA 19103.

7.2 National Stock Number Listing (NSN). The following is a list of Nsn's assigned which correspond to this CID. The list may not be indicative of all Nsn's associated with the CID.

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MILITARY INTERESTS:

NONE: DoD has no registered interest in revisions and amendments to this Commercial Item Description until further notice.

Preparing Activity:

GSA-FSS