[METRIC]
A-A-2542
January 30, 1996

COMMERCIAL ITEM DESCRIPTION

Sealer, Terrazo and Concrete Floors, Waterbased

The General Services Administration has authorized the use of this Commercial Item Description by all Federal Agencies.

1.0 SCOPE. This Commercial Item Description covers two types of 1-part, waterbased surface sealing compounds for protecting terrazzo and concrete floors from "dusting" due to abrasive wear and provides staining resistance to spillage of chemicals, paints and oils/greases.

2.0 CLASSIFICATION.

Type I -Waterbased acrylic
Type II -Non-acrylic co-polymer (awaiting technology)

3.0 SALIENT CHARACTERISTICS. (Type I and II)

3.1 Service life. Two coats of cured product shall provide a minimum of 24 months of service on warehouse and distribution center floors with heavy daily forklift and foot traffic. The cured product shall not soften or turn gummy when subject to seasonal wet traffic entering from loading areas. The Contractor shall provide a Certificate of Compliance (COC).

3.2 Composition. The Type I sealer product shall consist of a thermoplastic, metal complex cured, acrylic polymer, or if specified, Type II non-acrylic co-polymers, dispersed in water and other vehicle.

Product composition of Type I shall be ascertained by the following method: Compare a single beam infrared spectrogram of the Contractor's dry film sealant against a known spectrogram of acrylic resin (cured dry film) or compare to a reference spectrogram of acrylic resin from the Sadtler series (or other) of library reference series. All major absorbance between 2.0 to 15.0 microns shall agree.

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

FSC 8030

3.3 * Resin Solids. The minimum resin solids shall be 16%.

Weigh approximately 5.0 grams of liquid product to the nearest 0.001 gram in a tared aluminum dish. Place in a forced-draft oven for 16 hours @ 105° C. Cool to room temperature in a desiccator, before reweighing.
Calculation:

$$\% \text{ Resin Solids} = \frac{\text{net weight dry solids (grams)} \times 100}{\text{original liquid weight (grams)}} \text{, less \% ash (3.4 below)}$$

3.4 Inorganic Ash. The maximum inorganic ash content shall be 0.2% (wt. basis), when tested in accordance with ASTM D 817-72, or later revision.

3.5 Color[1]. When applied according to manufacturer's instructions, the cured film shall be colorless and non-yellowing, when applied to test tiles described in para. 6.0.

Prepare three (3) sealer coated tiles in accordance with manufacturer's instructions. Place two coated tiles into a forced-air oven heated to 125 °C for 48 hours. Reserve one tile unheated (air dry only) as control. No heated tile shall show any thermal yellowing when compared to the control tile.

3.6 Drying Time. Liquid sealer shall dry to touch within 60 minutes of application and shall show no surface defects or dullness from forklift traffic 12 hours after application. No forced-air movement shall be allowed for compliance. To 100 square feet of un-coated, smooth-finish, power troweled concrete floor, apply a single coat of sealant, in accordance with manufacturer's instructions, provided minimum atmospheric conditions are,

floor surface temperature shall be above 15°C (minimum)
air temperature shall be above 20°C (minimum)
relative humidity shall be above 50%

3.7 Adhesion. The cured sealant film, applied in accordance with the manufacturer's instructions, shall not peel or flake off cured concrete or terrazzo floors that have been power finished and subject to heavy daily foot and forklift traffic and seasonal tracked water.

3.8 Preservation. The liquid sealant shall not support putrefaction or mold growth in the original unopened containers for 36 months at temperatures below 27°C.

3.9 Removal. Cured sealant shall be removed with a solution of household ammonia.

On a sheet of flat plate glass, prepare 5 films approximately 5 cm x 15 cm at a minimum dry film thickness of 0.0005 inch (1/2 mil). Air dry 48 hours under ambient conditions. Brush a 0.5% solution of household ammonia solution on four (4) of the prepared films; reserve one film for control. Permit the ammonia to react, undisturbed, without scrubbing, for 30 minutes at 20-23 °C (min.). Under running tap water at 20-23°C, rinse all five panels, without scrubbing, for no more than 30 seconds. The control film, without ammonia solution treatment, shall remain unaffected and 100% intact. After rinsing, at least three (3) ammonia treated films shall be visually 90% free of cured sealer film. (In case of dispute, measure remaining film areas with a planimeter.)

4.0 REGULATORY REQUIREMENTS.

4.1 Material Safety Data Sheets. Material Safety Data Sheets (MSDS) shall be submitted in accordance with FED-STD-313C, or later revision, if published.

4.2 Recovered Materials and Restricted Materials. The Contractor shall utilize recovered materials to the maximum extent possible. There shall be no lead, mercury, or hexavalent chromium used in the formulation of the sealant. Maximum background lead content shall be 0.06% (600 parts per million), ovendry weight basis determined in accordance with ASTM D 3335.

5.0 QUALITY ASSURANCE PROVISIONS.

5.1 Contractor Certification. The Contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and the product conforms to the producer's own drawings, specification(s), standards and quality assurance practices, and is the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided under the provisions of the contract or purchase order.

5.2 ASTM. Use the latest method in effect on the date of the solicitation or order. ASTM standards and test methods are available from the American Society for Testing Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

5.3 Essential Acceptance Tests. Acceptance tests are marked by an asterisk "*"

6.0 NOTES.

[1] **Test tiles:** To simulate a power troweled concrete or finished terrazzo floor, purchase or prepare four (4) unglazed test tiles. Purchased tile, -use the white unglazed backside of commercial fired-tile. Or, the Contractor has the option of casting sufficient 1/2" x 6" x 6", approximately, unglazed test tiles from white Portland cement or a commercial "topping" mix (mortar). Cast test tiles against a flat sheet of glass; do not use a release agent. Allow the test tiles to set up for 24 hours. Bake test tiles in a forced-air oven at 105° C for 72 hours, supported on wire screen or expanded metal shelves to permit air circulation.

Military Custodians:
Army -MR
Navy -SH
AF -99

Preparing activity
GSA-FSS

Coordinating activity:

Army -ME