

HP Spartacote, Inc. High Performance Coating Systems

HP Spartacote, Inc.
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Specifier Notes:

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings.

Section 096723 Resinous Flooring Sparta-Stain™ Decorative Floor Coating System (10 mils)

Part 1: General

1.1 Section Includes

- A. Decorative Concrete Coating

1.2 Related Sections

- A. Section 03 30 00 – Cast-in-Place Concrete

1.3 Submittals

B. MSDS

1. Most current copy of manufacturer's Material Safety Data Sheet must be present and readily available at all times.

C. Product Data Sheets

1. Current edition of manufacturer's product data sheet pertaining to products employed which includes physical data, chemical resistance, surface preparation and application instructions.

D. Samples & Color Charts

1. Official manufacturer's color card & wet and/or dry sample of the proposed system may be submitted to represent finished system.

E. Warranty Information

1. Standard manufacturer's warranty
2. Applicator's standard warranty

F. Applicators Qualification Assurance: Submit list of a minimum of 5 completed projects of similar size and complexity to this work. Include for each project:

1. Project name & location
2. Name of owner
3. Name of contractor
4. Name of architect
5. Name of coating manufacturer
6. Approximate area of coatings applied
7. Date of completion

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G. All materials specified herein are manufactured by HP Spartacote[®], Inc. Golden, CO (866-966-1329).

H. Equivalent Materials of Other Manufacturers: None

1.4 Quality Control

A. Qualifications

1. Applicator shall have a minimum of 3 years experience in the preparation and application of fluid coatings to concrete floors and be properly trained/advised by the manufacturer.

B. Pre-Estimate Conference

1. Applicators, Architect and Manufacturer's Representative shall conduct a conference prior to estimate to review all aspects of the application, including but not limited to: surface preparation, application and cleanup.

C. Packing & Shipping

1. All materials are to be delivered intact to the job site in the manufacturer's original packaging with labels clearly identifying:
 - a. Coating or material name
 - b. Manufacturer
 - c. Color name
 - d. Batch or lot number
 - e. Date of manufacture

D. Storage & Protection

1. All material is to be stored in a cool dry place away from direct sunlight and potential ignition sources. Refer to MSDS for additional information.
2. All containers are to remain sealed until use.

1.5 Work Conditions

A. Environmental Requirements

1. Product can be applied with air temperatures as low as -30° F (-34° C)
2. Maintain proper ventilation through fans and/or venting systems within project environment.
3. Maintain adequate lighting, comparable to the finished project lighting, throughout the environment.
4. Properly dispose of any waste in accordance with applicable regulations.

B. Safety Requirements

1. Applicators should thoroughly review all pertinent technical data and MSDS sheets prior to application.
2. "No Smoking" signs shall be posted within project area and remain clearly visible.
3. Open flames, spark producing tools/items, and ignition sources shall be removed from the work area prior to application.
4. Only work related staff shall be allowed into the work area.

Part 2: Products

2.1 Concrete Dyes: Abstract Concrete Dyes[™]

A. Manufacturer: HP Spartacote[®], Inc. 810 Brickyard Circle #1 Golden, CO 80403, 866-966-1329,
www.hpspartacote.com

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2.2 Clear Concrete Sealers: Sparta-Flex™

B. Sparta-Flex® clear primer-sealer/finish coatings, available in gloss and lo gloss sheens, both decorative and protective, are a new generation of fast-curing, two-component, polyaspartic aliphatic polyurea products for interior or exterior use over properly prepared concrete and metal substrates. They have excellent penetration and bond strength to properly prepared surfaces and are UV resistant, light stable, and abrasion, impact, and wear resistant with flexible properties. They have good splash and chemical-spill- resistant properties involving commercial and household cleaners, pool water treatment products, and hot tires. They are available in a range of solids contents and low to 0 VOC formulations.

2.3 Properties

A. HP Spartacote® Sparta-Flex® exhibit the following cured system properties.

1. Property Profile & Performance: Sparta-Flex® Polyaspartic Coatings:

Percent Solids	Specific to Product, 65% - 100%
VOC Content:	Specific to Product, Generally < 100 g/L
Bond Strength to Concrete	500+ psi, substrate fails
Abrasion Resistance D-4060 (a) mg loss	22-28
Falling Sand Abrasion D-968 (b) liters sand/mil	30-38
Adhesion Pull-Off D-4541 psi over Concrete	400
Adhesion Pull-Off D-4541 psi over Concrete	1000
Tensile Strength D-638, D-2370 psi	4,500-5,000
Impact Direct/Reverse D-2794 Inch Lbs.	160 / 160
Flexibility 1/8" D-522 Cracking	Passes
Color/Gloss Retention 48 Mo. S. Florida, D-1014 meets	Level 3
Color/Gloss Retention D-4578 meets	Level 3

(a) CS-17 Taber Abrasion Wheel, 1,000 gram load; 1,000 revolutions

(b) Liters of sand to erode 1 dry mil coating

(c) Average of generic coatings surveyed

(d) NR-Not Recommended

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2. Chemical Resistance:
 - a. Consult HP Spartacote® Chemical Resistance and Performance charts for specifics

Part 3: Execution

3.1 Inspection

A. General

1. Examine the project area and take note of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the contractor in a manner acceptable to the architect.

3.2 Preparation

A. Protection of Surfaces not Scheduled to be Coated

1. Protect surrounding areas and surfaces not scheduled to be coated from damage during surface preparation and application of coatings
2. Immediately remove coatings that fall on surrounding areas and surfaces not scheduled to be coated.

B. Patching & Joint Preparation

1. Prior to application, existing substrate shall be examined for any cracks, spalls, holes, etc. These must be treated with adequate crack filler/repair materials exhibiting properties equal to proprietary polyurea based crack repair system from HP Spartacote®. Contact manufacturer for additional information.
2. Functional, control or expansion joints can be partially or completely filled with a premium-grade, high-performance, moisture-cured, 1-component, polyurethane-based, non-sag elastomeric sealant exhibiting minimum elongation qualities of 100%. Contact manufacturer for additional information

C. Preparing Concrete Surfaces

1. Before application the receiving surface must be deemed structurally and mechanically sound, clean, and dry. Proper surface preparation is required for decorative-concrete, thin-film “Class-A-type” flooring systems or sealer/finish coatings. This is best achieved with mechanical grinding machines using diamond heads achieving a final 50- to 120-grit profile. Recommended surface profile is SP-2, Reference ICRI Technical Guideline No. 03732.
2. All receiving surfaces must be free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, oils, fats, grease, waxes, residues from cleaning compounds, non-visible soluble salts, and any other impediments to adhesion. The resulting surface must be a neutral PH 7.
3. The rising moisture vapor emission rate is recommended by the manufacturer to not exceed 3 pounds per 1,000 square feet (3 lb/1,000 ft²) over a 24-hour period as measured by the calcium chloride test method, ASTM F-1869. Up to 6 pounds per 1,000 square feet is acceptable provided a minimum of 3-coats and 11 mil DFT. For substrates exceeding 6 pounds per 1,000 square feet, a manufacturer approved moisture barrier primer may be utilized. Contact the manufacturer for more details. *HP Spartacote® does not warranty the use of such methods for high moisture content floors exceeding 3 pounds per 1,000 square feet (3 lb/1,000 ft²) over a 24-hour period and any moisture barrier primer system employed is done solely at the discretion of the applicator.
4. The relative humidity in the slab must not exceed 80 percent. Any repairs that are not associated with normal cleaning and surface preparation work (i.e., cracks, chips, pitted/severe spalls deemed non-structurally sound or have levelness issues) must be properly addressed and remedied prior to

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application of the coating due to the fact that coatings follow the contours of the existing substrate. All spalls and cracks should be repaired in accordance with ICRI standards.

3.3 Application

A. General

1. The System shall be installed in the order annotated below:
 - a. Surface Preparation including Patching & Joint Preparation
 - b. Concrete Dye Application
 - c. Final Clear Topcoat Application

B. Inspection of Prepared Concrete Surface

1. Before application, the substrate to receive the coating must be clean, free from dust & debris, free from any bond-inhibiting agents, and completely dry. All holes, cracks, spalls must have been remedied.

C. Mixing

1. Thoroughly mix and disperse concrete dye in accordance with manufacturer's instructions.

D. Application of Material

1. Apply Abstract Concrete Dye™ in accordance with manufacturer's instructions.
 - a. Immediately brush out splashes, drips and puddles of concrete dye on surface.
2. Apply Concrete Sealer in accordance with manufacturer's instructions after substrate has thoroughly dried.

3.04 Cleaning

A. Disposal & Cleaning

1. Allow all remaining catalyzed material to cure and dispose of properly.
2. Cleanup per manufacturer's recommendations

3.05 Project Completion & Quality Control

A. Return to Service

1. Project shall not be allowed to return to full service prior to a full 24 hours from completion of final topcoat.
2. The following tests shall be performed by the applicator and recorded during application to submit to the Architect.
 - a. Air Temperature
 - b. Substrate Temperature
 - c. Dew Point

END OF SECTION