epoxy quartz floor system

StrataShield

Deco-Tread® SERIES 222

ABRASION

METHOD: ASTM D 4060, (CS-17 Wheel, 1,000 grams load, 1,000 cycles).
SYSTEM: Series 222 Deco-Tread cured 30 days at 75°F (24°C).
REQUIREMENT: 65.2 mg loss, average of three tests. (TR4459)

ADHESION

METHOD: ASTM D 4541.
SYSTEM: Series 201 Epoxoprime/Series 222 Deco-Tread applied to concrete and cured seven days at 75°F (24°C).
REQUIREMENT: Exceeds the cohesive strength of the concrete substrate (400 psi), average of three tests. (TR2827)

COEFFICIENT OF FRICTION

METHOD: ASTM D 2047.
SYSTEM: Series 201 Epoxoprime/Series 222 Deco-Tread/Series 284 Deco-Clear cured 14 days at 75°F (24°C).
REQUIREMENT: 1.2 static coefficient of friction, average of 12 tests. (TR4475)

COMPRESSIVE STRENGTH

METHOD: ASTM C 579.
SYSTEM: Series 222 Deco-Tread cured seven days at 75°F (24°C).
REQUIREMENT: 15,567 psi (107.33 MPa) compressive strength.

CRITICAL RADIANT FLUX

METHOD: ASTM E 648.
SYSTEM: Series 201 Epoxoprime/Series 222 Deco-Tread/Series 284 Deco-Clear applied to cement board and cured 34 days at 75°F (24°C).
REQUIREMENT: Maximum flame propagation distance of 419 mm and critical radiant flux of 0.52 W/cm², average of three tests. (TR4849)

FLEXURAL STRENGTH AND MODULUS OF ELASTICITY

METHOD: ASTM D 790.
SYSTEM: Series 222 Deco-Tread cured seven days at 75°F (24°C).
REQUIREMENT: 2,867 psi (19.77 MPa) flexural strength average of five tests. 127,876 psi (881.67 MPa) flexural modulus, average of five tests.

METHOD: ASTM C 580, Method A.
SYSTEM: Series 222 Deco-Tread cured 14 days at 75°F (24°C).
REQUIREMENT: 4,550 psi (31.4 MPa) flexural strength, average of three tests.

HARDNESS

METHOD: ASTM D 2240.
SYSTEM: Series 201 Epoxoprime/Series 222 Deco-Tread/Series 284 Deco-Clear cured 30 days at 75°F (24°C).
REQUIREMENT: Not less than a Shore Type Type D hardness of 72.3, average of five tests.

IMPACT

METHOD: ASTM D 2794.
SYSTEM: Series 201 Epoxoprime/222 Deco-Tread cured 30 days at 75°F (24°C).
REQUIREMENT: 160 inch pounds (18.08 J) average, direct impact. (TR2656)

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RATE OF BURNING

METHOD: ASTM D 635.
SYSTEM: Series 222 Deco-Tread cured 14 days at 75°F (24°C).
REQUIREMENT: HB classification. No more than 198 seconds of burning, average of 8 samples. Less than 15.8 mm/minute linear burning rate, average of three samples (self-extinguishing).

SHRINKAGE

METHOD: ASTM C 531.
SYSTEM: Series 222 Deco-Tread cured 14 days at 75°F (24°C).
REQUIREMENT: No more than 0.0035% linear shrinkage, average of four tests. (TR5090)

TENSILE STRENGTH

METHOD: ASTM D 638.
SYSTEM: Series 222 Deco-Tread cured seven days at 75°F (24°C).
REQUIREMENT: 2,183 psi (15.1 MPa) tensile strength, average of five tests.

METHOD: ASTM C 307.
SYSTEM: Series 222 Deco-Tread cured 14 days at 75°F (24°C).
REQUIREMENT: 2,100 psi (14.5 MPa) tensile strength, average of three tests.

THERMAL EXPANSION

METHOD: ASTM C 531.
SYSTEM: Series 222 Deco-Tread cured 14 days at 75°F (24°C).
REQUIREMENT: No more than 1.85×10^{-5} linear coefficient of thermal expansion per °F, average of two rounds of six tests. (TR5090)

WATER ABSORPTION

METHOD: ASTM C 413.
SYSTEM: Series 222 Deco-Tread cured seven days at 75°F (24°C).
REQUIREMENT: 0.1% water absorption, average of three tests. (TR4660)

This product will meet or exceed the above test requirements established for the coating systems listed. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating. Published technical data is subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions. For additional performance criteria and specific test results, contact Tnemec Company or its representative.

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StrataShield

DECO-TREAD® SERIES 222

PRODUCT DATA SHEET

epoxy quartz

PRODUCT PROFILE

GENERIC DESCRIPTION Colored Quartz-Filled Modified Polyamine Epoxy

COMMON USAGE A decorative broadcast or slurry broadcast laminated floor-topping system installed at 1/8" minimum thickness. Protects against impact, abrasion and mild chemicals with an aesthetically pleasing appearance.

COLORS Available in 12 standard colors. Refer to StrataShield Decorative Quartz Color card. Custom colors also available. **Note:** Epoxies chalk and yellow with age, extended exposure to UV and artificial lighting. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause amine blush, possibly affecting adhesion of subsequent topcoats.

FINISH Decorative quartz—multi-colored appearance. The finished appearance will depend on the type, film thickness and number of the clear finish coats selected.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 63-1500, 206, 218, 219. **Note:** A repair kit of 201, with Part C fumed silica, is available for small patching/surfacing repairs. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.

PRIMERS **Concrete:** Self-priming or Series 201

TOPCOATS Series 284, 285, 295. **Note:** If Series 285 or 295 is selected for the finish coat, an intermediate coat of Series 284 is required. Refer to the StrataShield Installation and Application guide for floors.

SURFACE PREPARATION

Prepare surfaces by method suitable for exposure and service. Refer to the appropriate primer data sheet for specific recommendations.

CONCRETE When self-priming: Allow new concrete to cure 28 days. Verify dryness by testing for moisture with a "plastic film tape-down test." (Reference ASTM D 4263) Should moisture be detected, perform "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride." (Reference ASTM F 1869) Moisture content not to exceed three pounds per 1,000 sq ft in a 24 hour period. Shot-blast or mechanically abrade to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide surface profile. Large voids, bugholes and other cavities should be filled with recommended filler or surfacer. (Reference SSPC-SP13, ICRI CSP3-5)

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT Minimum of 1/8". Requires two broadcast applications at 1/16" each or applied as a slurry broadcast.

CURING TIME

Temperature	Between Broadcasts/Topcoats	Place in Service
75°F (24°C)	12 to 24 hours	24 hours

VOLITILE ORGANIC COMPOUNDS **Unthinned:** 0.15 lbs/gallon (18 grams/litre)

THEORETICAL COVERAGE 1,604 mil sq ft/gal (39.4 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Three—Liquids: Part A & Part B (2 Parts A to 1 Part B by volume). Colored quartz: Part C
The Part C colored quartz (ChromaQuartz) is available from Tnemec or can be purchased from a different supplier.

PACKAGING

	PART A	PART B	Yield (mixed)
Extra Large Kit	2-55 gallon drums	1-55 gallon drum	165 gallons
Large Kit	2-5 gallon pails	1-5 gallon pail	15 gallons
Small Kit	2-1 gallon cans	1-1 gallon can	3 gallons

The Part C colored quartz aggregate is based on a nominal amount calculated at one-half pound per sq ft (2.4 kg/m²) per broadcast application or one pound per sq ft (4.8 kg/m2) for a double broadcast. Additional colored quartz aggregate may be required to accommodate for waste or loss during application or to make coving material.

NET WEIGHT PER GALLON 9.33 ± 0.25 lbs (4.23 ± .11 kg) mixed

STORAGE TEMPERATURE Minimum 40°F (4°C) Maximum 90°F (32°C)

TEMPERATURE RESISTANCE (Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE 12 months at recommended storage temperature.

FLASH POINT - SETA N/A

HEALTH & SAFETY This product contains chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

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Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Tnemec representative for current technical data and instructions.

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APPLICATION

COVERAGE RATES

Before commencing, obtain and thoroughly read the StrataShield Installation and Application Guide for floors.

The mixed liquids (Part A and B) are spread at a rate of 80 sq ft (7.4 m²) per gallon or approximately 20 mils (510 microns) wet. The colored quartz aggregate is then broadcast into the liquid until a uniformly dry appearance is obtained. After the first broadcast layer cures, forming a thickness approximately 1/16" (1.6 mm) thick, the excess colored quartz is removed and a second application is repeated to obtain a minimum thickness of 1/8" (3.2 mm).
Note: A double broadcast is required to achieve the 1/8" (3.2 mm) minimum. For slurry application instructions and spreading rates contact your Tnemec representative.

MIXING

Use a variable speed drill with a PS Jiffy blade. Slowly mix 2 parts A component, and while under agitation add 1 part B component and mix for a minimum of two minutes. Ensure that all Part B is blended with Part A by scraping the pail walls with a flexible spatula.
Note: A large volume of material will set up quickly if not applied or reduced in volume.
Caution: Do not reseal mixed material. An explosion hazard may be created.

THINNING

Normally not required.

POT LIFE

25 to 30 minutes at 75°F (24°C)

APPLICATION EQUIPMENT

Squeegee or trowel and backroll. For detailed instructions, refer to the StrataShield Installation and Application Guide for floors.

SURFACE TEMPERATURE

Minimum of 55°F (13°C), optimum 65°F to 80°F (18°F to 27°C), maximum of 90°F (32°C). The substrate temperature should be at least 5°F (3°C) above the dew point.

MATERIAL TEMPERATURE

For optimum application, handling and performance, the material temperature during application should be between 70°F and 90°F (21°C and 32°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Flush and clean all equipment immediately after use with xylene or MEK.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

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CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

096723-008
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

096723
SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

CRITICAL

ITEM BEING SUBMITTED (check only one)

- ○ Shop Drawings
- ○ Samples (_____ copies)
- ○ LEED Submittal
- ○ Certification / Qualifications
- ○ Record Documents
- ◉ Product Data
- ○ Coordination Drawing
- ○ Calculations
- ○ Schedules
- ○ O&M Manuals
- ○ Other _____

ITEM BEING SUBMITTED FOR (check only one)

- ◉ Action
- ○ Information Only
- ○ Record

REMARKS OR DEVIATIONS

Samples pending color choice and LEED submittals forthcoming.

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick — REVIEWED BY
12/6/16 — DATE

To be completed by Reviewer

09 6723-008
CANNON DESIGN SUBMITTAL NUMBER

12/7/16
RECEIVED DATE

- ○ A. No Exceptions Taken
  No further review of submittal is required.
- ◉ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ○ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ○ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ○ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ○ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

○ See attached sheet(s) for additional comments

Provide physical samples for Q201, Q205, and Q206.

Kelvin Patel — REVIEWED BY

Digitally signed by Kelvin Patel
DN: C=US, E=kpatel@cannondesign.com, O=Cannon Design, OU=Architect, CN=Kelvin Patel
Date: 2016.12.14 14:37:30-06'00'

12/14/16 — DATE

PARIC
EXPERIENCE. EXCELLENCE.
77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0374

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 12/06/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Resinous Flooring Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☑ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		096723-008	1		12/06/2016	Resinous Flooring Product Data	Submitted

NOTES:

CC:

Signed: _____
Devin Gates