

SECTION 096618

RESILIENT QUARTZ TILE FLOORING

CSI 3-PART **SHORT-FORM** GUIDE SPECIFICATION:
USE FOR OUTLINE OR DD SPECIFICATION ISSUES.

EDIT TO SUIT PROJECT

PART 1 - GENERAL

1.1 SUMMARY

- A. Work of this Section consists of resilient Knight Quartz Flooring tile and accessories including, but not limited to, adhesives, trowels, cleaning products, and finish systems.

1.2 REFERENCES

- A. Abbreviations and Acronyms per DIVISION 01, and as follows:
1. AHJ. Authority Having Jurisdiction from local, state and federal regulatory agencies.
 2. Per. In accordance with
 3. RH. Relative humidity.

1.3 SUBMITTALS

- A. Product Data per DIVISION 01: Submit manufacturer's printed descriptions of for each specified product.
- B. Shop Drawings per DIVISION 01: Submit keyed location plans, plans indicating tile type, layout, pattern direction, edge transitions, columns, doorways, enclosing partitions, built-in furniture, cabinets, cutouts, expansion and control joints, and attachment requirements.
- C. Samples per DIVISION 01: Submit printed color charts or material chain for Initial Selection; and two (2) full size products for Final Selection.
- D. Quality Assurance Submittals per DIVISION 01: Submit Compatibility Certificates, Test and Evaluation Reports, and Qualification Statements.

NOTE: Edit LEED Requirements below to suit project.

- E. Sustainable Design (USGBC [LEED®](#)) Submittals:
1. LEED Credit MR, Materials & Resources. Submit completed LEED-NC 2.2 Submittal Templates, and other required paperwork as follows:
 - a. MR 5.1: 10% Regional Materials
 - b. MR 5.2: 20% Regional Materials
 2. LEED Credit EQ, Indoor Environmental Quality. Submit completed LEED-NC 2.2 Submittal Templates and required paperwork as follows:

- a. EQ 4.1: Low Emitting Materials, Adhesives & Sealants, VOC Data meeting South Coast Air Quality Management District (SCAQMD) Rule 1168 and Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 51, requirements.
- b. EQ 4.3: Low Emitting Materials, Carpet and Resilient Flooring Systems
 - 1). Submit manufacturers product data for systems that includes printed statement of VOC content.

F. Closeout Submittals per DIVISION 01: Maintenance Data, Executed Warranty Documentation, and Record Documents.

NOTE: Edit LEED Requirements below to suit project.

1. Sustainable Design Closeout Documentation: Submit completed USGBC LEED® worksheet templates for the following credits:
 - a. MR 5.1, MR 5.2
 - b. EQ 4.1, EQ 4.3

NOTE: Edit percentage below to suit scope of project.

G. Maintenance Material Submittals - Extra Materials: Submit no less than five (5) percent additional full and unopened cartons of each type and pattern of tile used.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E648 or NFPA 253 by a qualified testing agency.
 - a. Critical Radiant Flux Classification: Class I, not less than 0.45 W/cm²

B. Qualifications: Manufacturer with minimum five (5) years and Installer with minimum three (3) years of successful experience.

C. Source Limitations: Obtain primary flooring materials through one source from a single manufacturer.

1. Provide secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from source recommended by manufacturer of primary materials.

NOTE: Edit sustainability standards and certifications below to suit project.

D. Sustainability Standards and Certifications:

1. Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District [Rule 1168](#) and [GS-36](#) for aerosols.
2. VOC Limits: As tested using U.S. EPA Reference Test Method 24 and in accordance with (per) SCAQMD [Rule 1113](#), SCAQMD [Rule 1168](#), BAAQMD [Regulation 8, Rule 51](#), and California Air Resources Board (CARB).

- E. Field Samples per SECTION 014000: Provide field samples, dry laid, to demonstrate aesthetic effects of materials in situ, assisting the Architect and Owner in making final selections.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery, Storage and Handling per manufacturer guidelines, industry guidelines, and DIVISION 01 requirements.

1.6 WARRANTY

- A. Manufacturer Warranty. Provide manufacturer's **Fifteen (15)** year limited warranty stating installed Knight Quartz Flooring tiles are guaranteed shall be free from wear-through defect due to normal use in light industrial and commercial applications.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Manufacturers List: Subject to compliance with requirements, provide products by one of the following:
 - 1. Knight Quartz Flooring, 7500 4th Street, Marrero, LA 70072; 800.356.0740; 504.340.7487; Fax 866.340.7487; www.kpfflooring.com or www.knightquartzflooring.com
 - a. Technical Support; 866.850.8836; support@kpfflooring.com
- B. Substitution Limitations: Manufacturers of equivalent products shall be considered when submitted in accordance with CSI Substitution Request Form 1.5C (During the Bidding Phase) or Form 13.1 (After the Bidding Phase.) [link](#)
- C. Product Options
 - 1. Flooring Type:
 - a. Knight Quartz Concepts (directional pattern)
 - 1). Size: 12 x 12 x 0.100 inch (305mm x 305mm x 2.5mm)
 - 2). Size: 24 x 24 x 0.100 inch (610mm x 610mm x 2.5mm)
 - 3). Color and Pattern: As selected by Architect from manufacturer's [34 types](#)
 - b. Knight Quartz Scapes (non-directional pattern)
 - 1). Size: 24 x 24 x 0.100 inch (610mm x 610mm x 2.5mm)
 - 2). Color and Pattern: As selected by Architect from manufacturer's [15 types](#)
 - 2. Floor Finish Systems:
 - a. Factory UV Cured Urethane Finished Tile (Requires NO Field Finish.)
 - b. Standard Tile (Requires Field Finish)
 - 1). Field Applied Finish: Conventional acrylic system

NOTE: Custom colors, custom marbling and solid color tiles available by Special Order.

- 3. Accessories
 - a. Underlayment leveling compound per SECTION 035416

- b. Expansion joints per SECTIONS 079200 and 079513
- c. Transition and divider strips per SECTION 096513

NOTE: Select appropriate adhesive and delete types not selected.

- d. Adhesive – Knight Pressure Sensitive Adhesive #0901300
- e. Adhesive – Epoxy by Henry as recommended for heavy loading conditions (compatible adhesive by others)
- f. Adhesive – Two part Polyurethane by Henry as recommended for top down water, heavy impact or continued cold conditions (compatible adhesive by others)

RED NOTE: Do not use asphalt-based adhesives.

- g. Trowel
- h. Cleaning products
- i. Finish systems

2.2 DESCRIPTION

- A. Knight quartz floor tile is an ASTM E84 **Class A** fire-resistance rated, ASTM F1700 Class II, surface decorated tile, composed of 70 percent quartz sand inorganic filler suspended in polyvinyl esters, formed under heat and pressure and cut to create resilient quartz tile flooring in a variety of colors and patterns.

- B. **Sustainability Characteristics**

NOTE: Coordinate and edit below to the correct LEED Version and Rating selected.

1. **USGBC LEED Rating: Comply with project requirements intended to achieve LEED-NC v. 2.2 Platinum rating, as measured and documented per USGBC LEED® Green Building Rating System**
2. **Applicable LEED Credits: Performance requirements of the following LEED Categories and Credits apply to this Section and are met as follows:**
 - a. **Materials & Resources (MR):**
 - 1). **MR Credit 5.1 and MR 5.2:** 20% of Knight Quartz Flooring is extracted processed and manufactured regionally with natural quartz sand recovered from within 500 miles radius of the KQF manufacturing facilities in Marrero, LA.
 - b. **Indoor Environmental Quality (EQ):**
 - 1). **EQ Credit 4.1:**
 - a). Knight Quartz Floor Tiles meet SCAQMD Rule 1168, BBAQMD Regulation 8, Rule 51, and GREENGUARD Indoor Air Quality Certified requirements per certificate #HF2Vc94811-1.
 - b). W.W. Henry Co. Pressure Sensitive Adhesive VOC Content: **0 g/L**; more than meets SCAQMD Rule 1168 and BBAQMD Regulation 8, Rule 51.
 - 2). **EQ Credit 4.3:** Knight Quartz Floor Tiles meet GREENGUARD Certified for Children & Schools emission requirements per certificate #HF2Vc94811-1.

2.3 MATERIALS

A. Quartz Floor Tile per ASTM F1700: Class: II, Surface-Decorated Tile

1. Composition: Minimum 70 percent mined quartz suspended in a vinyl matrix
2. Surface: Type A, Smooth
3. Thickness: 0.100 inch (2.5mm)

NOTE: Special thicknesses available upon request.

4. Edge: Square

NOTE: Select size(s) to suit project and delete that not chosen.

5. Size: 12 by 12 inches (305mm by 305mm)
6. Size: 24 by 24 inches (610mm by 610mm)

NOTE: Custom color available.

7. Color: As selected by Architect from Manufacturers standard colors.

2.4 FINISHES

A. Factory Applied Urethane Coating: UV Cured Protective, Clear Finish Coating; Aliphatic moisture-cured, one-part urethane coating; VOC compliant (0 g/L), non-HAP, non-yellowing, low-odor, and fast cure.

1. Manufacturer / Product: Formulators / Poly-Cur S-200
(www.formulatorsonline.com)
2. Cleaning Product: JohnsonDiversey Inc. / UHS Cleaner

NOTE: Select factory-applied UV Cured urethane finish above or field-applied system below, deleting item not chosen.

B. Field Applied Floor Finish: Provide protective liquid floor finish system as listed in manufacturer's [Maintenance Guides](#).

2.5 ACCESSORIES

NOTE: Select one of the following leveling methods, deleting the one not chosen.

- A. Concrete Slab Leveling and Patching Compound: Latex-modified Portland cement-based patching compound; Ardex CP, or Architect acceptable equivalent.
- B. Self-Leveling Underlayment: Pourable latex-modified, portland cement-based formulation; Ardex K-15; Ardex LU 100; or Architect acceptable equivalent.
- C. Expansion Joints: Refer to DIVISION 07.
- D. Adhesive – Pressure Sensitive: Solvent-free, low odor, acrylic based, water-resistant type by floor tile manufacturer to suit floor tile product and substrate conditions indicated; Knight Quartz Flooring Pressure Sensitive Adhesive.

RED NOTE: In cases of heavy or dynamic loading, top down water or continued cold conditions epoxy or a two-part polyurethane adhesive by Henry is recommended.

Do not use asphalt-based adhesives.

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

- A. Conditions and Measurements: Visit jobsite to verify installation conditions and floor measurements.
- B. Environmental Conditions per manufacturer's recommendations and DIVISION 01.

3.2 EXAMINATION, PREPARATION AND INSTALLATION

- A. Examination, preparation and installation per manufacturer's current written [instructions](#) and DIVISION 01 requirements.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 2. Install substrate underlayment per manufacturers' instructions and meeting each requirement of finish flooring product manufacturer.

RED NOTE: Do not use particleboard, flakeboard, chipboard, luan or OSB underlayment products per Knight Quartz Flooring requirements.

- 3. Prepare each substrate to ensure proper adhesion of quartz tile flooring system.

RED NOTE: Do not use gypsum based underlayment products, and do not skim coat concrete subfloors.

- 4. Install tiles per manufacturer's written instructions.

RED NOTE: Remove existing resilient floors prior to installation per OSHA regulations and work practices, if applicable.

- 5. Expansion Joints: Locate movement joints where indicated prior to installation of adhesive and tile. Coordinate with Division 07 requirements.
- 6. Following tile installation, roll entire floor area with a 100 lb roller to ensure proper bonding.
- 7. Protect flooring from traffic for 12 hours before and after installation.

3.3 CLEANING, MAINTENANCE AND PROTECTION

- A. Provide Progress Cleaning and Provide Final Cleaning per DIVISION 01 requirements.
 - 1. Waste Management per DIVISION 01 requirements.

RED NOTE: Do not wet mop flooring until adhesive has fully cured per Adhesive Manufacturers guidelines.

- 2. Provide Initial Maintenance per Knight Quartz Flooring's written recommendations.

**RED NOTE: Do NOT use strippers on Factory UV Cured Urethane Finished Tiles.
Use only manufacturer recommended cleaning products.**

3. Provide protection per Knight Quartz Flooring's written recommendations.

3.4 CLOSEOUT ACTIVITIES

- A. Substantial Completion Requirements per DIVISION 01 requirements: Closeout procedures, demonstration and training, and sustainable design closeout documentation.

END OF SECTION

RED NOTE: Be sure to obtain the latest version of this Guide Specification.

This Guide Specification is not a completed document ready for use. It must be edited, deleting, adding, or modifying text, as required to suit project requirements.

The professional stamping and the contracting parties of the Contract Documents are responsible for the accuracy of issued project specifications, including any use of this Knight Quartz Flooring Guide Specification.

KNIGHT QUARTZ FLOORING SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF THE USE OF THIS GUIDE SPECIFICATION.