

# STONLUX SL 2 MM GUIDE SPEC

**SECTION 096723 - RESINOUS FLOORING**

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This Section uses the term "Architect." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

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**PART I GENERAL**

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Definitions: Resinous flooring includes penetrating and sealing, two-component epoxy primer, free flowing epoxy formulation including resin, curing agent and finely graded aggregate and powder.

B. Related Work

1. Division 3 Section Cast-in-place Concrete

2. Division 7 Section Fluid Applied Waterproofing

3. Division 7 Section Joint Sealers

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's technical data, installation instructions, and general recommendations for each resinous flooring material required. Include certification indicating compliance of materials with requirements.

B. Samples: Submit, for verification purposes, 5-inch square samples of each type of resinous flooring required, applied to a rigid backing, in color and finish indicated.

1. For initial selection of colors and finishes, submit manufacturer's color charts showing full range of colors and finishes available.

1.04 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain primary resinous flooring materials including primers, resins, hardening agents, finish or sealing coats from a single manufacturer with not less than ten years of successful experience in manufacturing and installing principal materials described in this section. Contractor shall have completed at least five projects of similar size and complexity; Stonhard or approved equal. Provide secondary materials only of type and from source recommended by manufacturer of primary materials.

B. Pre-Installation Conference

1. General contractor shall arrange a meeting not less than thirty days prior to starting work.

2. Attendance

a. General Contractor

b. Architect/Owner's Representative

c. Manufacturer/Installer's Representative

C. ISO 9002: All materials, including primers, resins, curing agents, finish coats, aggregates and sealants are manufactured and tested under an ISO 9002 registered quality system.

1.05 DELIVERY, STORAGE AND HANDLING

A. Material shall be delivered to job site and checked by flooring contractor for completeness and shipping damage prior to job start.

B. All materials used shall be factory pre-weighed and pre-packaged in single, easy to manage batches to eliminate on site mixing errors. No on site weighing or volumetric measurements allowed.

C. Material shall be stored in a dry, enclosed area protected from exposure to moisture. Temperature of storage area shall be maintained between 65 and 90°F/18 and 32°C.

1.06 PROJECT CONDITIONS

A. Concrete substrate shall be properly cured. A vapor barrier must be present for concrete subfloors on or below grade. Otherwise, an osmotic pressure resistant grout must be installed prior to the resinous flooring.

B. Utilities, including electric, water, heat (air temperature between 65 and 85°F/18 and 30°C) and finished lighting to be supplied by General Contractor.

C. Job area to be free of other trades during, and for a period of 24 hours, after floor installation.

D. Protection of finished floor from damage by subsequent trades shall be the responsibility of the General Contractor.

1.07 WARRANTY

A. Manufacturer shall furnish a single, written warranty covering both material and workmanship for a period of one (1) full year from date of installation.

**PART II PRODUCTS**

2.01 COLORS

A. Colors: As selected by Architect from manufacturer's standard colors.

2.02 EPOXY FLOORING

A. Stonlux SL (2 mm) as manufactured by Stonhard, Inc., Maple Shade, NJ, (800) 257-7953 is a nominal 80 mils/2 mm thick system comprised of a penetrating and sealing, two-component epoxy primer and a three-component, free flowing epoxy formulation including resin, hardener, reactive flow enhancers and finely graded aggregate and powder.

1. Physical Properties: Provide flooring system in which physical properties of topping including aggregate, when tested in accordance with standards or procedures referenced below, are as follows:

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| **Tensile Strength 1,900 psi**  **(ASTM D-638)** |
| **Flexural Strength 3,860 psi**  **(ASTM C-580)** |
| **Hardness 80-85**  **(ASTM D-2240/Shore D Durometer)** |
| **Indentation No Indentation**  **(MIL-D-3134F)** |
| **Abrasion Resistance 0.10 gm max. weight loss**  **(ASTM D-4060, Taber**  **Abrader CS-17 wheel)** |
| **Flexural Modulus of Elasticity 5.2 x 105 psi**  **(ASTM C-580)** |
| **Flammability Self Extinguishing**  **(ASTM D-635) Extent of burning 0.25 inches max.** |
| **Thermal Coefficient of**  **Linear Expansion 5.3 x 10-5 in/in-oC**  **(ASTM E-831)** |
| **Water Absorption 0.2%**  **(ASTM C-413)** |
| **Heat Resistance Limitation 140°F/60°C**  **(for continuous exposure)**  **200°F/93°C**  **(for intermittent spills)** |
| **Cure Rate allow 18 hours for foot traffic**  **(at 77°F/25°C) 36 hours for light traffic**  **48-72 hours for normal operations** |

2.03 JOINT SEALANT MATERIALS

A. Type produced by manufacturer of resinous flooring system for type of service and joint condition indicated.

**PART III EXECUTION**

3.01 PREPARATION

A. Substrate: Concrete preparation shall be by mechanical means and include use of a shot blast machine for removal of bond inhibiting materials such as curing compounds or laitance.

3.02 APPLICATION

A. General: Apply each component of resinous flooring system in compliance with manufacturer's directions to produce a uniform monolithic wearing surface of thickness indicated, uninterrupted except at divider strips, sawn joints or other types of joints (if any), indicated or required.

B. Primer: Mix and apply primer over properly prepared substrate with strict adherence to manufacturer's installation procedures and coverage rates.

C. Base: Mix base material according to manufacturer's recommended procedures. Uniformly spread mixed material over previously primed and sealed substrate using manufacturer's specially designed squeegee. Roll material using manufacturer's specially designed roller. Strict adherence to manufacturer's installation procedures and coverage rates is imperative.

3.03 FIELD QUALITY CONTROL

A. The right is reserved to invoke the following material testing procedure at any time, and any number of times during period of flooring application.

B. The Owner will engage service of an independent testing laboratory to sample materials being used on the job site. Samples of material will be taken, identified and sealed, and certified in presence of Contractor.

C. Testing laboratory will perform tests for any of characteristics specified, using applicable testing procedures referenced herein, or if none referenced, in manufacturer's product data.

D. If test results show materials being used do not comply with specified requirements, Contractor may be directed by Owner to stop work; remove non-complying materials; pay for testing; reapply flooring materials to properly prepared surfaces which had previously been coated with unacceptable materials.

3.04 CURING, PROTECTION AND CLEANING

A. Cure resinous flooring materials in compliance with manufacturer's directions, taking care to prevent contamination during stages of application and prior to completion of curing process. Close area of application for a minimum of 24 hours.

B. Protect resinous flooring materials from damage and wear during construction operation. Where temporary covering is required for this purpose, comply with manufacturer's recommendations for protective materials and method of application. General Contractor is responsible for protection and cleaning of surfaces after final coats.

C. Cleaning: Remove temporary covering and clean resinous flooring just prior to final inspection. Use cleaning materials and procedures recommended by resinous flooring manufacturer. General contractor is responsible for cleaning prior to inspection.

END OF SECTION

2/2/98