

## SeamTek<sup>®</sup> Type 4 Epoxy Flooring

### Product Data Sheet

#### 1. Product Description

##### Basic use

SeamTek<sup>®</sup> Type 4 epoxy flooring is composed of two component 100% solids, low-odor, low VOC resins that chemically cure to form a rigid and highly abrasion resistant binder for high performance interior floor finishes. It is designed to be 1/8" thick and otherwise it is the same flooring system as SeamTek Type 3. It is often selected as a VE option to Type 3.

SeamTek Type 4 flooring has been specifically designed to cure with no air release problems that can cause subsequent cleaning problems. The resin component (SR101) is designed to work with several selected hardeners to serve as a high performance matrix. The seal coat hardener (CRH405) assures outstanding chemical resistance when compared to other CR epoxy products. SeamTek Type 4 flooring is ideal for Animal Holding, Laboratory, Pedestrian, Pharmaceutical, Lavatory and many other uses.

At 1/8" thickness Type 4 is not recommended for Cage wash areas unless water temperatures are below 140 degrees F. If temperatures are expected to be above 180 degrees F, we recommend considering the SeamTek LTS Series which can withstand temperatures well in excess of 300 degrees F.

Type 4 can be installed over a sloping slab or a sloping mortar to enhance the flow of water to the drain(s). Sloping is recommended in all wet areas since flooring that is immersed under constantly ponding water and chemicals tends to deteriorate faster than flooring under alternate use conditions. Unless otherwise specified, Type 4 will follow the contour(s) of the existing substrate and can not be used as a stand alone system to correct such problems.

As with any flooring system, environmental conditions surrounding the installation are important. Ambient temperatures need to be above 65 F degrees with slab temperatures at or above 60 degrees F; humidity must be below 75%. These conditions can be tough to achieve in certain new construction scenario but if they are not achieved the installation may suffer aesthetically and the resins may not performed as designed. Consequently STI can not be responsible for the performance of the flooring system installed under adverse conditions.

Type 4 has been designed to be resin rich so as to present a dense system that will experience minimal damage from surface chips that break the sealed surface. Consequently it is sensitive to moisture migration through the substrate to the underside of the floor. Concrete substrates should be checked for moisture migration using ASTM F 1869-98 calcium chloride test. If the test results are 3 pounds and over we recommend moisture remediation.

##### *Features and benefits include:*

- Excellent Clarity of the Matrix
- Excellent Chemical Resistance
- Excellent adhesion to concrete
- Good workability – easy to spread
- 100% solids – harmful solvent free
- Low VOC
- Low odor
- Low flammability
- High Taber Resistance

The STI SeamTek systems in general are composed of resins and aggregates which utilize the best available technology for safety , performance and lowest environmental impact. All products and systems are extensively field tested prior to use on SeamTek projects.

##### **Limitations**

SeamTek quartz flooring must not be used to bridge moving cracks or joints. Non-moving cracks or joints that must be over coated require rigid repairs. Epoxy flooring in general is subject to discoloration from UV light therefore care should be taken to avoid placement in from of unprotected windows and UV insect lights. Surface or air temperature must be between 65°F minimum and 80°F maximum and relative humidity below 75%. Lower temperatures will extend cure time and higher temperatures will reduce pot and work life. Chemical resistance as depicted in the specification is a relative classification and we recommend testing the chemicals you use in your facility on test flooring samples before making your final selection.

### Storage and Handling

Because SeamTek epoxies have a flash point above 200°F (93°C), transportation, storage and handling are less restricted.

### Product Health and Safety Information

Refer to container labels and Material Safety Data Sheets available from STI for health, safety and environmental information. If necessary, call STI at (800) 666-6216.

### Applicable Standards

STI SeamTek clear epoxy resins have been tested in accordance with American Society for Testing and Materials (ASTM) methods. Refer to Table 1 on page 1 for more information. SeamTek Type 4 can be used in food processing areas and other similar applications. The USDA and FDA no longer regulate coatings used on floors, walls, and ceilings in food process areas, since the surfaces are not intended for food contact.

### Mixing

Caution, containers used to measure SeamTek epoxy resin and Harder must be marked appropriately and only used to measure the indicated component. Container used to mix both resin and hardener must be cleaned or changed after mixing each batch to avoid residual material affecting viscosity and cure rates.

Measure both parts by volume 2 to 1 into plastic marked containers. Pour resin and hardener into a separate container and agitate using a jiffy paddle and low speed drill (400-600 rpm). Agitate for 2 minutes, and then scrape sides of container and mix for an additional minute. Avoid generating air bubbles and foam. Consider mixing small batches to reduce potential waste. To avoid exothermic reaction in mixing container, do not let mixed components sit in container. Immediately, either pour the mixed epoxy binder resin onto the floor to be coated or thoroughly mix with aggregate and then pour onto floor. Spread or finish material according to application instructions contained in STI Technical Manual.

## 3. Warranty

STI Quartz Floor Systems are installed by STI Associate Contractors and are available with the STI Single Source Limited Warranty for Labor and Material. This Product Data Sheet is for your information and is neither a contract nor a product warranty. Your installation contract is provided by your STI Associate Contractor. STI's warranty to you is made solely in the STI Single Source Limited Warranty for Labor and Material. Contact your Associate Contractor for the specific warranty document.

## 4. Maintenance

SeamTek Systems are hard seamless surfaces that will provide years of life with little maintenance. For more detailed maintenance instructions, please request STI Floor Maintenance Instructions. Periodic inspections by your STI Associate Contractor are recommended to discuss ways to extend the life of the floor care.

### Material Components/Ratios and Spread Rates

Type 4 is an epoxy flooring systems designed to be 1/8" thick. It is called a double broadcast system; the resins and ratios are as follows:

- 1) Cove base mix: **SR101 and SH101 in 2:1** mix ratio as above. Mix 1 ½ quarts (three pints) of mixed liquid with 11 quarts of quartz or 50 mesh sand.
- 2) 1<sup>st</sup> broadcast of neat resin: Mix **SR101 and SH101** at a **2:1** ratio as above and apply with a v-notch trowel @ 72 sq ft per gallon.
- 3) 2<sup>nd</sup> broadcast of neat resin; **SR101 and SH101 in a 2:1** ratio and spread @ 72 sq ft/gal spread rate
- 4) Seal coat: Trowel neat **resin SR101 and hardener CRH405** in a 2:1 ratio at a spread rate of 72 sq ft/gal
- 5) Depending on the desired skid resistance there may be a second seal coat mixed as #6 above with a spread rate of 300+ sq ft/gal.

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