

SeamTek® Epoxy Flooring (SeamTek Type 3 and 4)

1. Product Description

SeamTek® epoxy Quartz Flooring incorporates specifically formulated resin components as the matrix of the quartz systems. In the case of quartz flooring, resin SR-101 and hardener SH 101 are the backbone of the system.

SR 101 is a 100% solids epoxy resin with low VOC and very low odor. SR-101 has been specifically formulated with excellent air release and material flow so as to make it easy to handle. The hardener component is SH-101 which is formulated to enhance air release, provide excellent wear properties and for ease of troweling either in neat form or in combination with color quartz or graded aggregate.

SR-101 has been designed to be used with a variety of hardeners to achieve the desired effect. In the LSP Quartz Flooring systems SR-101 is combined with CRH-405 to provide a chemical resistant material superior to other epoxy mixes. CRH-405 yields a seal coat that is uncharacteristically clear for a chemical resistant seal coat hardener.

Quartz flooring has historically been utilized in all aspects of Animal Holding Facilities, kitchens, bathrooms and many other applications. Quartz flooring has good wear properties, and good chemical resistance.

SeamTek® Type 3 is installed @ 3/16" thickness to account for thermal shock @ 180 degrees F in Cage Wash areas. **SeamTek® Type 4** is installed @ 1/8" thickness in animal rooms, corridors, surgical suites and areas not subjected to thermal changes.

Color
Resins are amber clear. Floor color is provided from the color quartz used in the system.

Surface Preparation
Surfaces should be cleaned of oil, grease and dirt. If applied over a smooth, glossy surface, the

surface should be grit blasted or ground with a coarse diamond cup to create a surface profile for optimum adhesion. When applying new coatings over previously sealed surfaces, a spot test should be made to check for lifting or incompatibility with the old coating. It is extremely important that this surface is free of all moisture prior to coating application or blistering of flooring may occur.

Application

Binder resins can be applied immediately after mixing. However, thorough mixing of the two components is important. Mechanical mixing is preferred at slow speed to avoid air entrapment. Do not mix quantities greater than you can apply in 20 minutes @ 70° F.

Mix Ratios:

For specific information regarding mix ratios of resins and the spread rates for each step refer to the PDS or Specification for the selected system; either SeamTek® Type 3 or SeamTek® Type 4.

Difficult to Remove From Skin. Wear gloves and protective clothing. Do not attempt to remove cured coating on skin with solvent; soak in warm, soapy water. Barrier creams are not recommended; where possible wear protective clothing.

Limitations:

All flooring systems should be checked for chemical resistance against the specific chemicals used in your facility to assure their resistance. Quartz floors are hard and rigid and should not be used to bridge moving cracks. The concrete substrate should also be checked for moisture vapor migration to assure the compatibility with the existing conditions. Do not install in situations where the emission rate exceeds 3 pounds per 1000 sq ft per 24 hours (ASTM F)

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 3 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 3 is an epoxy flooring systems designed to be 3/16" thick. It is called a slurry/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) 1st Broadcast: Mix **SR101 and SH101** at a **2:1** ratio as above. Mix the resin with the slurry aggregate as follows:
1 gallon mixed resin : 4 pounds silica:
10 pounds
of 50 mesh sand, mix the batch to a pancake batter consistency and trowel out @ 36 – 40 sq ft/gal
- 3) 2nd broadcast: neat resin **SR and SH 101 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