

SeamTek® Type 7 Industrial Epoxy Flooring

1. Product Description

Basic use

SeamTek® Type 7 is a pigmented mortar epoxy flooring composed of two component 100% solids, low-odor, and low VOC resins that is chemically cure to form a rigid and highly abrasion resistant binder filled with graded dried quartz for the aggregate.

SeamTek® Type 7 utilizes the same resin component (SR101) as is designed for work with other STI Epoxy floor systems and also incorporates the same chemical resistant hardener systems for high performance flooring but are provided in a pigmented form. Type 7 is designed as a mortar or trowel in place floor and is recommended for use over rough substrates and can therefore be used to shorten installation time by eliminating substrate repair.

Type 7 is not recommended for use in wet areas since mortar systems are inherently porous and will absorb liquids when chipped. If floor 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.

Our recommendation is to not use mortar systems in wet areas such as dog kennels, primate areas or cage wash areas because of their inherent porosity. In any event 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 drier operating conditions. The rate of deterioration of the flooring system will be increased if there are chips in the surface of a mortar system than it does in comparable resin rich floors. Unless otherwise specified, Type 7 will follow the contour of the existing substrate.

As with any flooring system, environmental conditions surrounding the installation are important. Ambient temperatures need to be between 65 and 80 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 ultimately not performed as designed. Consequently LSP cannot be responsible for the performance of the flooring system installed under adverse conditions.

Type 7 is also sensitive to moisture migration through the substrate to the underside of the floor. Concrete substrates must be checked for moisture migration using ASTM F 1869-98 calcium chloride test. If the test results are 3 pounds or more we recommend moisture remediation.

Features and benefits include:

- Decorative
- Installation time
- Excellent adhesion to concrete
- Good workability – easy to spread
- 100% solids – harmful solvent free
- Low VOC
- Low odor
- Low flammability
- High Taber Resistance

The LSP 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 LSP projects.

Limitations

Type 7 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 front 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. Pigments reduce chemical resistance.

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 LSP for health, safety and environmental information. If necessary, call STI at (800) 666-6216.

Applicable Standards

LSP 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 7 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 hardener 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. Finally mix the combined with the pre-weighed aggregate and mix for another three minutes. Consider mixing small batches to reduce potential waste. To avoid exothermic reaction in mixing container, do not let mixed components sit in container. Immediately, pour the mixed epoxy and aggregate onto the floor and place the mortar. Spread or finish material according to application instructions contained in LSP Technical Manual.

3. Warranty

SeamTek® Systems are installed by LSP Associate Contractors and are available with the LSP 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 LSP Associate Contractor. LSP's warranty to you is made solely in the LSP Single Source Limited Warranty for Labor and Material. Contact your Associate Contractor for the specific warranty document. Resin based floor and wall systems are hard and rigid when cured and will therefore be forced to move and crack open if the supporting substrate moves or shifts.

4. Maintenance

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