

sti[®] Seamless Technologies, Inc.

SeamTek[®] N² 4101 LTS Resin

Product Data

1. Product Description

Basic use

SeamTek[®] 4101 is a catalyst activated 100% solids, low-odor, no VOC, LEED compliant pure vinyl ester resin that chemically cures to form a highly temperature resistant binder for high performance flooring systems. It has been specifically designed to exhibit excellent thermal resistance characteristics with high thermal glass transition values, air release, and workable viscosity. It is intended as the binder for flake and quartz aggregate floors.

Features and benefits include:

- Low Thermal Sensitivity
- Excellent chemical resistance
- Low foaming
- Excellent adhesion properties
- High impact resistance
- 99.3 % solids – solvent free
- No VOC
- Low odor
- LEED Compliant
- High Taber Resistance

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

Composition and Materials

SeamTek pigmented and filled pure vinyl ester is a chemical curing, two component, 100 % solids compound.

Sizes

The binder resin is packaged in 4 U.S. gallon pails.

Limitations

SeamTek 4101 must not be used to bridge moving cracks or joints. Non-moving cracks or joints that must be over coated require rigid repairs. 4101 is not to be used as a seal coat resin. Surface or air temperature must be between 65°F minimum and 80°F maximum and relative humidity below 80%. Lower temperatures will extend cure time and higher temperatures will reduce pot and work life.

Storage and Handling

Because SeamTek 4101 has 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 4101 has been tested in accordance with American Society for Testing and Materials (ASTM) methods. Refer to Table 1 on page 1 for more information. SeamTek 4101 is recommended for use in areas where thermal shock may otherwise cause floor failure.

Surface Preparatory Work

Preparatory work must be done in accordance with procedures described in STI Technical Manual.

Mixing

Caution, containers used to measure SeamTek 4101 resin must be marked appropriately and only used to measure the indicated component. Container used to mix the resin and catalyst must be cleaned or changed after mixing each batch to avoid residual material affecting viscosity and cure rates. Cure 4101 with CU-9 catalyst only @ 2% by volume. Pour

Table 1 Typical Physical Properties

Property	Measuring Standards and Conditions	Results Part A/Part B
Specific Gravity	ASTM D 70, Fisher #3-247 pycnometer	1..32
Weight +/- 0.4 lbs./gal.	ASTM E 201	11.009lbs./gal.
Non-volatile Content	ASTM D 1353, 18 hrs. at 200°F (93°C)	100%
Viscosity, cps	LV #3 Spindle, Thix 3.01, 77 degree F	6500 cps
Flash Point, TCC minimum	Seta Flash	Greater than 200°F (93°C)
Solvent Odor	ASTM D 1296	Extremely low
Pot Life		20 minutes at 72°F (22°C) & 50%

resin and catalyst into a separate container and agitate using a jiffy paddle and low speed drill (400-600 rpm). Agitate for 2 minutes, 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 4101 binder resin onto the floor. Spread or finish material according to application instructions contained in STI Technical Manual.

3. Warranty

STI floorsystems 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 not 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.

5. Technical Service

Call your STI representative for assistance.

Table 2 – Typical Performance Properties

Property	Measuring Standards and Conditions	Binder Resin Results Only See Note 1 below
Drying time	ASTM D 1475 77°F (25°C)	To Touch: 4 to 6 hrs., max. To complete: 24 hrs. max.
Hardness (indentation)	ASTM D 2240 Rex D Model 1700	80 resin only 80-85 with aggregate
Elongation	ASTM D 638	Less than 15 %
Tensile Strength	ASTM D 638	4000 psi (31 MPa)
Water Absorption	ASTM D 570-95	Less than 0.2%
Indentation Resistance	Mil. Std. D-3134	Zero
Water Vapor Transmission	ASTM E 96-94	Less than 0.10 U.S. perms
Weathering Resistance	ASTM G 26 Type B, BH, 300 hrs	UV Stable
Abrasion Resistance	ASTM C 501, CS-17 Wheel, 1000 rev. with 1000 gram weight	Less than 0.1 grams weight loss
Bond Strength to Concrete	ASTM D 4541	350 psi (2.4 to 3.4 MPa) Concrete fails
Electrical Conductivity		Non conductive
Flammability	ASTM D 635	Self-Extinguishing

1. For additional performance properties for binder resin with aggregate added (ie. Tensile Strength, Flexural Strength, Flexural Modulus, Compressive Strength, Coefficient of Linear Expansion, etc.) refer to STI technical manual for specific system(s) selected.

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