

PRODUCT DESCRIPTION

Stonchem 621 is a highly cross-linked, novolac epoxy, sparkproof lining system applied at a nominal thickness of 625 microns. The Stonchem 621 system has excellent resistance to concentrated sulfuric acid, solvents and caustics.

USES, APPLICATIONS

- Secondary containment areas
- Concrete pads and pedestals
- Splash/spill areas

PRODUCT ADVANTAGES

- Excellent chemical resistance to concentrated sulfuric acid, chlorinated solvents and caustics
- Carbon filled
- Factory proportioned units for easy application

CHEMICAL RESISTANCE

Stonchem 621 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 600 Series Chemical Resistance Guide, which lists reagent concentration and temperature recommendations for each product.

PACKAGING

Stonchem 621 is packaged in units for easy handling. Each unit consists of:

Topcoat

2 cartons of Stonchem 620 Series Topcoat

A carton contains:

- 2 foil bags of amine
- 2 cans of resin

COVERAGE

Each unit of Stonchem 621 will cover approximately 16.72 m² at a thickness of 625 microns.

STORAGE CONDITIONS

Store all components between 10 to 24°C in a dry area. Keep out of direct sunlight. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent and rinsing with clean water. The surface must show open pores

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-307)	30 N/mm ²
Flexural Strength (ASTM C-580)	36 N/mm ²
Flexural Modulus of Elasticity (ASTM C-580)	6.8 × 10 ³ N/mm ²
Hardness. (ASTM D-2240, Shore D)	85 to 90
Abrasion Resistance (ASTM D-4060, CS-17)	0.07 gm max. weight loss
Thermal Coefficient of Linear Expansion (ASTM C-531)	3.6 × 10 ⁻⁵ m/mm°C
Color	Black

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual system, including binder and filler, were used as test specimens.

throughout and have a sandpaper texture. For recommendations or additional information regarding substrate preparation, contact Stonhard's Technical Service Department.

APPLICATION GUIDELINES

Before mixing and applying any material, make sure environmental conditions are satisfactory for application. For optimal working conditions, the substrate temperature must be between 15 to 27°C. Measure the surface temperature with a surface thermometer. Cold areas must be heated until the slab temperature is above 12.7°C.

This will allow the material to achieve a proper cure. Also, a cold substrate will make the material stiff and difficult to apply. Warm areas or areas in direct sunlight must be shaded or arrangements made to work during evenings or at night.

A warm substrate (15 to 27°C) will aid in the material's workability; however, a hot substrate (32 to 37°C) or a substrate directly in the sun will shorten the material's working time and can cause other phenomenon such as pinholing and bubbling.

APPLYING

Priming

Vacuum before priming and make sure the substrate is dry. The use of HT Primer is necessary in all applications of Stonchem 621. This ensures maximum product performance. (See the HT Primer product data sheet for details.)

Note: HT Primer must be tack-free prior to application of Stonchem 621.

First Coat

After allowing the primer to cure, mix the resin and amine in a 5 gallon mixing bucket using a heavy-duty, slow-speed drill (400 to 600 rpm) with a Jiffy Mixer for one minute. Pour the material onto the floor and spread using a 15 mil notched squeegee.

Backroll the area with a medium nap roller to remove squeegee lines, using long roll strokes to decrease the visibility of roller lines. For vertical surfaces, pour a bead of material along the base of the wall. Using a medium nap roller, roll the material onto the wall. The wet film thickness of the coating is 250 to 300 microns. Check the thickness with a wet film gauge.

Second Coat

Apply the same as the first coat.

Note: Stonchem 621 is not a conductive system and will not yield point to point resistance readings.

CURING

The surface of Stonchem 621 will be tack-free in 4 to 6 hours at 21°C. The coated area may be put back in service in 24 hours at 21°C. Ultimate physical characteristics will be achieved in 7 days.

RECOMMENDATIONS

- Apply only on a clean, sound, dry and properly prepared substrate.
- Minimum ambient and surface temperatures are 13°C at the time of application.
- Maximum surface temperatures should not exceed 32°C during the time of application.
- Substrate temperature should be greater than 3°C above dew point.
- Application and curing times are dependent upon ambient and surface conditions. Consult Stonhard's Technical Service Department if conditions are not within recommended guidelines.

IMPORTANT:

Stonhard believes the information contained here to be true and accurate as of the date of publication. Stonhard makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

PRECAUTIONS

- Toluene or Xylene solvents are recommended for clean up of Stonchem 621 material spills. Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- Avoid contact with Stonchem 621 resin and amine as they may cause skin, respiratory and eye irritation.
- **The use of NIOSH/MSHA approved respirators using an organic vapor/acid gas cartridge is recommended.**
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles and impermeable nitrile gloves are highly recommended.
- In the event of accidental eye contact, rinse eyes immediately with copious amounts of water and seek medical attention.
- If material is ingested, immediately contact a physician and reference the MSDS.
- Use only with adequate ventilation. Inhalation of vapors may cause severe headaches, nausea and possibly unconsciousness.

NOTES

- Material Safety Data Sheets for Stonchem 621 are available on line at www.stonhard.com under Tech Info or upon request.
- Specific information regarding chemical resistance of Stonchem 621 is available in the Stonchem 600 Series Chemical Resistance Guide.
- A staff of technical service engineers is available to assist with product application, or to answer questions related to Stonhard products.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.

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