STONHARD

STONCHEM®510

PRODUCT DATA

PRODUCT DESCRIPTION

Stonchem 501 is a 100% solids, high performance, epoxy lining system applied at a nominal thickness of 625 microns. Two coats of mineral composite filled coating is ideal for the coating of bases, piers, walls and concrete structures. A one coat, 250 to 300 microns application will renew the surface of an aged lining system. The Stonchem 501 system has excellent resistance to caustics and moderate concentrations of acids.

USES, APPLICATIONS

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

PRODUCT ADVANTAGES

- Excellent chemical resistance to caustics and moderate concentrations of acids
- Mineral composite filled for increased impermeability
- Factory proportioned units for easy application

CHEMICAL RESISTANCE

Stonchem 501 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 500 Series Chemical Resistance Guide which lists reagent concentration and temperature recommendationsn for each product.

PACKAGING

Stonchem 501 is packaged in units for easy handling. Each unit consists of:

Topcoat

2 cartons of Stonchem 500 Series Topcoat

A carton contains:

4 foil bags of amine

4 poly bags of resin

COVERAGE

Each unit of Stonchem 501 will cover approximately 16.72 sq. m at a thickness of 625 microns.

Note: Coverage rates shown are theoretical. Actual coverage rates may vary. Make necessary allowances for the condition of the surface to be coated, working conditions, waste, spillage, experience level and skill of the installers, etc.

STORAGE CONDITIONS

Store all components between 10 to 24°C in a dry area. Keep out of direct sunlight. When stored in the unopened containers at the proper temperatures, the shelf life is 3 years.

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	26.89 N/mm^2
Flexural Strength (ASTM C-580)	67.57 N/mm^2
Flexural Modulus of Elasticity (ASTM C-580)	1 x 0.73 N/mm^2
Hardness (ASTM D-2240, Shore D)	85-90
Abrasion Resistance (ASTM D-4060, CS-17)	0.12 gm max. weight loss
Thermal Coefficient of Linear Expansion (ASTM C-531)	2.2 x 10-5 in./in.°C
Color	Gray

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory environment, values obtained on field applied materials may vary and certain test methods can only be conducted on lab made test coupons.

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 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, 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 501. 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 501.

First Coat

After allowing the primer to cure, mix the amine and resin 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 out with 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 materia 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.

CURING

The surface of Stonchem 501 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 clean, sound, dry and properly prepared substrates.
- Minimum ambient and surface temperature is 13°C at the time of application.
- Maximum surface temperature should not exceed 32°C during application. Substrate temperatures above 38°C will drastically affect the working time of the product.
- Substrate temperature should be greater than 3°C above dew point.
- Material should not be applied if humidity is above 85%.
- Application and curing times are dependent upon ambient and surface conditions. Consult Stonhard's Technical Service Department if conditions are not within recommended guidelines.

PRECAUTIONS

- Toluene or Xylene solvents are recommended for clean up of Stonchem 501 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 501 amine and resin, as they may cause skin, respiratory and eye irritation.
- 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 water.
- If material is ingested, immediately contact a physician and reference the MSDS.
- Use only with adequate ventilation.

NOTES

- Material Safety Data Sheets for Stonchem 501 are available on line at www.stonhard.com under Tech Info or upon request.
- Specific information regarding chemical resistance of Stonchem 501 is available in the Stonchem 500 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.

STONHARD A Division of StonCor Group www.stoncor-europe.com

Belgium	+32 67493710	Spain/Portugal	+351 707200088	Germany	+49 240541740
France	+33 160064419	United Kingdom	+44 1256336600	The Netherlands	+31 165585200
Poland	+48 422112768	East Europe	+31 165585200	Italy	+39 02253751