STONCHEM 610

PRODUCT DESCRIPTION
Stonchem 610 is a highly cross-linked, novolac epoxy, mineral composite lining system applied to horizontal surfaces at a thickness of 135 mil/3.3 mm. One trowel applied mortar layer coated with Stonchem 610 provides a heavy-duty chemical barrier for moderate traffic areas. The Stonchem 610 system has excellent resistance to concentrated sulfuric acid and is recommended for areas with severe solvent exposure.

USES, APPLICATIONS
- Process floors
- Solvent storage rooms
- Drum storage areas

PRODUCT ADVANTAGES
- Superior chemical resistance to concentrated sulfuric acid and chlorinated solvents
- Mineral composite topcoat for low permeability

Factory proportioned units for easy application

CHEMICAL RESISTANCE
Stonchem 610 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 600 Series Chemical Resistance Guide for lists of reagent concentrations and temperature recommendations.

PACKAGING
Stonchem 610 is packaged in units for easy handling. Each unit consists of:

Mortar

1 carton of Stonchem 600/620 Liquids
A carton contains:
4 foil bags of Amine 4 poly bags of Resin
4 bags of Mortar aggregate

Topcoat

1 carton of Stonchem 600 Series Topcoat
A carton contains:
4 foil bags of Amine 4 poly bags of Resin

PHYSICAL CHARACTERISTICS

Compressive Strength (ASTM C-579)	,000 psi
Tensile Strength (ASTM D-638)	,900 psi
Flexural Strength (ASTM C-580)	,200 psi
Flexural Modulus of Elasticity (ASTM C-580)	x 10^5 psi
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)	2.2 x 10-5 in./in.˚C
Color	Gray
Cure Rate (@70F˚/21˚C)	4 to 6 hours tack-free 24 hours chemical service
VOC (ASTM D-2369, Method E)	600/620 Liquids 20 g/l 600 Topcoat 68 g/l

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.

COVERAGE
Each unit of Stonchem 610 will cover approximately 180 sq. ft./16.72 sq. m at a thickness of 135 mil/3.3 mm.

STORAGE CONDITIONS
Store all components between 50 to 75˚F/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.

SUBSTRATE
Stonchem 610, with the appropriate primer, is suitable for application over concrete, wood, brick, quarry tile, metal, or Stonhard Stonset grouts. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

SUBSTRATE PREPARATION
Proper preparation is critical to ensure an adequate bond and system performance. The substrate must be dry and properly prepared utilizing mechanical methods. Questions regarding substrate preparation should be directed to your local Stonhard representative or Technical Service.

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 60 to 80˚F/15 to 27˚C. Measure the surface temperature with a surface thermometer. Cold areas must be heated until the slab temperature is above 55˚F/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 (60 to 80˚F/15 to 27˚C) will aid in the material's workability; however, a hot substrate (80 to 100˚F/27 to 37˚C) or a substrate directly in the sun will shorten the material's working time and can cause pinholing and bubbling.

APPLYING

Priming

Vacuum the substrate to remove all dirt and dust. Dry all wet spots completely before priming. The use of HT and SL Primer is recommended to prevent pinholing in the mortar system. Before applying the Mortar, squeegee a light coat of Stonchem Epoxy Primer (800 sq. ft./ 74.35 sq. m per unit) on top of the cured SL Primer. (See the HT Primer product data sheet for details.)

Note: The Stonchem Epoxy Primer must remain tacky during installation of the Mortar.

Mortar

Empty the amine and resin into a 5-gallon mixing bucket. Put the container on a J.B. Blender and pre-mix for one minute. When pre-mixing is complete, set the timer for 90 seconds. Start the J.B. Blender and gradually add the Mortar aggregate. The mixed mortar should be free of any clumps. Apply the mortar onto the substrate by pouring the entire contents of the bucket onto the floor and screeding with a 1/2 in. x 1/2 in. V-notch trowel. If the entire contents of the bucket is not poured onto the floor, the material remaining in the bucket will settle. Additional mixing is required to remove settled material from the bucket. Screed the material immediately after it has been poured. Material allowed to settle on the substrate will become harder to screed. To achieve proper thickness of 125 mil/3 mm, the trowel should be held at a 45-degree angle with the notch tips in contact with the substrate at all times. Using a spike roller, roll the surface of the mortar until an even finish is achieved. Allow the material to cure for 4 to 6 hours.

Topcoat

Sand the mortar with a mechanical sander and sanding disc. Vacuum the area completely before applying Stonchem 600 Series Topcoat. Mix the Stonchem 600 Series Topcoat amine and resin in a 5-gallon mixing container using a heavy-duty, slow-speed drill (400 to 600 rpm) with a Jiffy Mixer for 2 minutes. 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. When backrolling, use long roll strokes to decrease the visibility of roller lines. The wet film thickness of the coating is 10 to 12 mil/250 to 300 microns. Check the thickness with a wet film gauge.

CURING

The surface of Stonchem 610 and Stonchem 600 Series Topcoat will be tack-free in 4 to 6 hours at 70˚F/21˚C. The area may be put back into service in 24 hours at 70˚F/21˚C. Ultimate physical and chemical characteristics will be achieved in 7 days.

RECOMMENDATIONS

- Apply only on clean, sound, dry, and properly prepared substrates.
- Minimum ambient and surface temperatures are 55˚F/13˚C at the time of application.
- Maximum ambient temperatures should not exceed 90˚F/32˚C during time of application.
- Substrate temperature should be greater than 5˚F/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 the recommended guidelines.

PRECAUTIONS

- Avoid contact with Stonchem 610 amine and resin as they may cause skin, respiratory, and eye irritation.
- Acetone is recommended for clean-up of Stonchem 610 resin or amine material spills. Use these materials only in strict accordance with the manufacturers' recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- Insure mechanical ventilation in non-ventilated areas or confined spaces.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles or safety glasses, and impermeable gloves are required.
- In case of contact, flush the area with copious amounts of water for 15 minutes and seek medical attention. Wash skin with soap and water.
- If material is ingested, immediately contact a physician. DO NOT INDUCE VOMITING.

NOTES

- Safety Data Sheets for Stonchem 610 are available upon request.
- Specific information regarding chemical resistance of Stonchem 610 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's products.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.

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.

04/25

STONHARD EST. 1922

USA HQ	(800) 257 7953	Mexico	+(52) 55 9140 4500	Belgium	+(32) 67 49 37 10	South Africa	+(27) 11 254 5500	Australia	+(61) 3 9587 7433
Canada	(800) 263 3112	Argentina	+(54) 11 5032 3113	Dubai, UAE	+(971) 4 3470460	India	+(91) 22 28500321		