

STONCHEM®721

PRODUCT DESCRIPTION

Stonchem 721 is a spark-proof polyester resin lining system applied at a nominal thickness of 625 microns. The Stonchem 721 system has excellent resistance to hydrofluoric acid and strong oxidizers such as concentrated nitric and chromic acids.

USES, APPLICATIONS

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

PRODUCT ADVANTAGES

- Excellent chemical resistance to concentrated nitric, chromic and hydrofluoric acids
- Carbon filled
- Factory proportioned units for easy application
- Non sparking

CHEMICAL RESISTANCE

Stonchem 721 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 700 Series Chemical Resistance Guide which lists reagent concentration and temperature recommendations for each product.

PACKAGING

Stonchem 721 is packaged in units for easy handling. Each unit consists of:

Topcoat

2 cartons of Stonchem 720 Series Topcoat

A carton contains:

- 2 jars of peroxide
- 2 cans of resin

COVERAGE

Each unit of Stonchem 721 will cover approximately 16.72 m² 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. Avoid excessive heat and do not freeze. The shelf life is 6 months in the original, unopened container.

SUBSTRATE

Stonchem 721, with the appropriate primer, is suitable for application over concrete and the following uncoated, newly-applied Stonhard mortars and grouts: GS, HT, UR, TG6, TG8, CR5 and PM8. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	30 N/mm ²
Flexural Strength (ASTM C-580)	83 N/mm ²
Flexural Modulus of Elasticity (ASTM C-580)	3.4 x 10 ³ N/mm ²
Hardness (ASTM D-2240, Shore D)	85 to 90
Abrasion Resistance (ASTM D-4060, CS-17)	0.10 gm max. weight loss
Thermal Coefficient of Linear Expansion (ASTM C-531)	3.9 x 10 ⁻⁵ mm/m°C
Color	Black
VOC (ASTM D-2369, Method E)	720 Topcoat 18 g/l

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.

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. For existing coated surfaces, the coating must be completely removed back down to intact mortar or substrate. Once the coating is removed, prime the prepared surface with Stonchem Epoxy primer and broadcast with silica aggregate to refusal. Remove any excess silica aggregate prior to system overlayment. Omitting these steps could result in uncured material. Questions regarding substrate preparation should be directed to your local Stonhard representative or Technical Service.

APPLICATION GUIDELINES

For optimal working conditions, substrate temperature must be between 15 to 27°C. Cold areas must be heated until the slab temperature is above 13°C to ensure the material achieves a proper cure. 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 (27 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. 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.

FIELD GEL TESTS

Due to the unique nature of the 720 Series resins, their reactivity is affected by storage conditions and age; therefore, it is important to test the cure of the materials prior to application. Gel tests should be performed for each lot of each product shipped to a job to prevent problems related to material curing. Field gel test kits are included in every shipment of 720 Series material. One gel test contains directions and all of the necessary materials to conduct the testing. Test all lots of material prior to use.

PRIMING

Vacuum the surface before priming, and make sure the concrete substrate is dry. The use of Stonchem 700/800 Series Primer is necessary in all applications of Stonchem 822. This ensures maximum product performance. (See the Stonchem 700/800 Series Primer Product Data sheet for details.)

Note: Stonchem 700/800 Series Primer must be tack-free prior to application of the Basecoat.

APPLYING

Basecoat

Mix the peroxide and resin in a c.a. 20 ltr mixing container, 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 material up onto the wall. The wet film thickness of the coating is 250 to 300 microns. Check the thickness with a wet film gauge.

Topcoat

Apply the same as the Basecoat.

Note: Stonchem 721 is not a conductive system and will not yield point to point readings.

CURING

The surface of Stonchem 721 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.

PRECAUTIONS

- Avoid contact with Stonchem 721 resin (polyester resin and styrene monomer) and peroxide (catalyst/organic peroxide), as they may cause skin, respiratory and eye irritation.
- Acetone is recommended for clean up of Stonchem 721 resin (polyester resin and styrene monomer) and peroxide (catalyst/ organic peroxide) material spills. Use these materials only in strict accordance with the manufacturers' recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- The use of NIOSH/MSHA approved respirators using an organic vapor/acid gas cartridge is mandatory.
- 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 area with 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.**
- Use only with adequate ventilation. Inhalation of vapors may cause severe headaches, nausea and possibly unconsciousness.

NOTES

- Material Safety Data Sheets for Stonchem 721 are available on line at www.stonhard.com under Tech Info or upon request.
- Specific information regarding the chemical resistance of Stonchem 721 is available in the Stonchem 721 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.

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.

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