STONHARD

STONCHEM®722

PRODUCT DATA

PRODUCT DESCRIPTION
Stonchem 722 is a conductive and spark-proof unsaturated polyester resin lining system applied at a nominal thickness of 1 mm. The mortarcoat, carbon filled topcoat sequencing provides a light-duty, conductive, and non-sparking chemical barrier. The Stonchem 722 system has excellent resistance to hydrofluoric acid and oxidizers such as concentrated nitric and chromic acid.

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 acid
- Carbon filled
- Factory proportioned units for easy application

CHEMICAL RESISTANCE
Stonchem 722 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 700 Series Chemical Resistance Guide for lists of reagent concentrations and temperature recommendations.

PACKAGING
Stonchem 722 is packaged in units for easy handling. Each unit consists of:

Mortarcoat
1.5 carton of Stonchem 700/720 Liquids
A carton contains:
2 jars of Peroxide
2 cans of Resin

3 bags of 720 Mortarcoat aggregate

Topcoat
1 carton of Stonchem 720 Series Topcoat
A carton contains:
2 jars of Peroxide
2 cans of Resin

COVERAGE
Each unit of Stonchem 722 will cover approximately 16.72 m2 at a thickness of 1 mm.

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

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	30 N/mm²
Flexural Strength (ASTM C-580)	83 N/mm²
Flexural Modulus of Elasticity (ASTM C-580)	3.4 x 103 N/mm²
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)	3.6 x 10-5 mm/m˚C
Color	Black
Cure Rate (@21C)	4 to 6 hours tack-free 24 hours chemical service
VOC (ASTM D-2369, Method E)	700/720 Liquids 31 g/l 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
Stonchem 722, with the appropriate primer, is suitable for application over concrete and the following uncoated, newly-applied Stonhard mortars and grouts: GS, HT, UR, UT, TG6, TG8, CR5 and PM8. 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. For existing coated surfaces, the coating must be completely removed back down to an intact mortar or substrate. Onze 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 722. 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 Mortarcoat.

APPLYING

Mortarcoat

Pre-mix the peroxide and resin in a c.a. 20 ltr mixing bucket with a heavy-duty, slow-speed drill (400 to 500 rpm) and a mixing blade for one minute. For vertical applications, use Vertiacal Mortarcoat aggregate. Mixing is complete when no dry clumps of material exist. 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. The material may appear rough at first but will level out to a smooth finish. For vertical surfaces, use a large steel trowel or knife to pull an initial coat of vertical material onto the wall, then finish smooth with a flat rubber squeegee.

> **Note:** If the application requires a conductive system, you must test the mortalcoat layer for conductivity using the meggar to ensure itis within the proper range. The conductivity of the mortarcoat layer must be below 1 x 10^8 ohms at 200 volts.

ELECTRICAL TESTING

Once the conductive mortarcoat layer has cured, it must be tested for proper conductivity. Point-to-point and point-toground readings should be taken and all values should fall below $1.0x10^8$ ohms(Ω).
The floor must also be tested after the carbon-filled topcoat has cured. Once the conductive sealer is tack-free, point-topoint and point-to-ground readings should be taken. All values must fall below $1.0x10^9$ ohms(Ω) at 500 volts.

Topcoat

After allowing the Mortarcoat to cure, lightly grind areas where ridges or imperfections exist. Vacuum the area completely. Mechanically mix the peroxide and resin in ac.a. 20 ltr mixing bucket using a heavy-duty drill (400 to 600 rpm) with a mixing blade for 2 to 3 minutes. Immediately pour the material onto the substrate and spread out using a 15 mil notched squeegee. Do not let material sit in the c.a. 20 ltr bucket after mixing – carbon will settle at the bottom and will not disperse properly. To finish, roll the material with a medium nap roller. Use long strokes to decrease 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.

> **Note**: If the application requires a conductive system, you must test the finished system for conductivity using the meggar to ensure it is within the proper range. The conductivity of the final system should be below 1 x 109 ohms at 500 volts. A static control report detailing the resistance readings over the entire area must be filled out and submitted to the customer.

PRECAUTIONS

- Avoid contact with Stonchem 722 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 722 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 car tridge 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.

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