Product Literature Review Form

Name: stonchem 310 product data 1.0 in process 2025 april 3

Reason for Review: update format & back logo

Requested by: De Salvano

Product Manager please check one below.

- LAUNCHING – hold until launched, comments/date _____
- POST TO STONZONE ONLY
- POST TO WEBSITE & STONZONE

Approvals:

	Approver	Initial	Date
De Salvano creates	PRODUCT MANAGER:	SP	04.08.25
Product manager	R&D:	n/a	
Product manager	TIERNEY	n/a	
Product manager	HENDRY	n/a	
Hendry	KOV/MATTOON	n/a	
De Salvano	PDF & POST	Ds	04-09-2025

STONCHEM® 310

PRODUCT DESCRIPTION
Stonchem 310 is a 100% solids, aggregate-filled, 1/8 in./0.31cm. trowel applied polyamine cured epoxy lining system.

USES, APPLICATIONS
- Highly Corrosive Environments
- Municipal Wastewater Facilities

PRODUCT ADVANTAGES
- Trowel or spray applied
- Non-sagging liner
- Applied to either damp or dry concrete
- Produces 1/8 in./0.31cm thick protective liner on vertical, horizontal or overhead surfaces

CHEMICAL RESISTANCE
Excellent resistance to water, brine solutions, oils, hydrogen sulfide and acids generated by microbiological sources encountered in municipal wastewater treatment environments.

PACKAGING
Stonchem 310 is offered in units for easy handling. Each unit consists of 6 cartons of Stonchem 310 Mortar liquids. Each carton contains:

(1) gallon can of amine
(1) 1-gallon can of epoxy resin
6 bags of Aggregate

PHYSICAL CHARACTERISTICS

Compressive Strength (ASTM C-579)	6,600 psi
Flexural Strength (ASTM C-580)	4,400 psi
Modulus of Elasticity (ASTM C-580)	9.53 x10^5 psi
Tensile Strength (ASTM C-580)	1,800 psi
Thermal Coefficient of Linear Expansion (ASTM C-531)	3.78 x 10^{-5} in./in.˚F
Abrasion Resistance (ASTM D-4060, CS-17)	0.22 g max wt. loss
Pot Life	30 to 40 minutes @ 70˚F/21˚C
Absorption (ASTM C-413)	<0.03%
Color	Light Gray and Yellow

Note: Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data is subject to reasonable deviation.

COVERAGE
Stonchem 310 is packaged in premeasured units. One mix will cover 30 sq. ft. at 1/8 in./3.175 mm thickness (theoretical). One unit will cover 180 sq. ft./ 16.7 m. Actual coverage may vary depending upon the condition of the concrete.

STORAGE CONDITIONS
Store all components between 50 to 85˚F/10 to 29˚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
Remove oil, grease, foreign contaminants, previously applied paints and deteriorated mortar. Abrasive blasting with a fine abrasive aggregate and reducing pressure will produce a good bonding tooth. A texture of 40 to 60 grit sandpaper is desired. Hydro-blasting is also acceptable.

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/13˚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 other phenomenon such as pinholing and bubbling.

APPLICATION
Mixing

Blend amine and resin in the 5-gallon pail supplied, using a slow speed, paddle-type mixer or a low RPM drill motor mixer. Add the Aggregate gradually while mixing into the amine/resin mixture. Mix to a uniform consistency.

CAUTION!! Application in direct sunlight and rising surface temperature may result in bubbling, blistering, or pinholes due to expansion of entrapped air or moisture in the concrete. Concrete surfaces that have been in direct sunlight must be shaded for 24 hours prior to application and remain shaded until the initial set has taken place.

When the surface temperatures are rising, it may be necessary to postpone the application or apply during the cooler evening hours. Trowel or spray apply Stonchem 310 evenly over the surface (building low spots to the desired thickness). Apply at approximately 30 sq. ft./9.1 m per mix or 1/8 in./0.31 cm thick. Once the material is mixed it will have a 30-to-40-minute working time at 70˚F/21˚C. After each unit has been applied, back roll with a short nap roller dampened with water to remove trowel marks and produce a smooth finish. Do not wet the roller excessively.

Troweling
A trowel with rounded corners (referred to as a swimming pool trowel) is recommended.

Spraying
Spray equipment is utilized to replace a trowel as the means of transferring the material from the container to the surface. Due to the heavy viscosity of the material, a fine atomization cannot be obtained.

When applying by spray, a trowel wipe of the liner surface prior to back rolling is recommended. Special equipment is required: Air Tech Spray Systems, P.O. Box 10070, Houston, TX, 77206; 7:1 swinger unit, 1 in. fluid hose, 3/8 in. nozzle with air pressure at 100 psi and fluid pressure at 700 psi.

Contact Stonhard's Technical Service Department for more in- formation on the spray equipment.

CURING
Stonchem 310 will be dry to the touch in 12 hours at 70˚F/21˚C, will be firm to the touch in 24 hours at 70˚F/21˚C and will be suitable for chemical service in 36 hours at 70˚F/21˚C.

LINING REPAIR
Before any touch-up or recoat material can be applied, the first coat must be properly prepared for intercoat adhesion.
The first coat must be cured firm to the touch. Coating on floors must be able to support foot traffic. If the first coat cures more than 24 hours, sand and solvent wipe the surface to ensure good intercoat adhesion. Any surface to be touched up or recoated should be protected. When the recoat, material is applied, the surface must be dry and free of all dirt, dust, debris, oil, grease and other contamination.

RECOMMENDATIONS
- Apply only on a clean, sound, properly prepared substrate.
- Minimum ambient, material and surface temperatures are 50˚F/10˚C, 50˚F/10˚C and 50˚F/10˚C respectively, at the time of application.
- Maximum ambient, material and surface temperatures are 90˚F/32˚C, 85˚F/29˚C and 90˚F/32˚C respectively, at the time of application.
- Relative humidity should not exceed 85%.
- Substrate temperature should be 5˚F/3˚C above the 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.

PRECAUTIONS
- Toluene or Xylene solvents are recommended for cleanup of Stonchem 310 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 310 amine and resin, 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 water.
- 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
- Safety Data Sheets for Stonchem 310 are available online at www.stonhard.com under Tech Info or upon request.
- Specific information regarding the chemical resistance of Stonchem 310 can be found on the Stonhard website or by contacting Stonhard's Technical Service Department.
- 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 worldwide.

06/19
 www.stonhard.com

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 **China** +(86) 21 61838698 **India** +(91) 22 28500321