

PRODUCT DESCRIPTION

Stonchem 341 is a 100% solids, flake filled, epoxy coating designed for primary and secondary containment applications. This two-component system consists of high performance epoxy resin and an amine curing agent. Stonchem 341 can be applied by plural component or single component spray equipment at a total thickness of 762 to 1,016 microns in a onecoat application. Stonchem 341 is UL approved for Potable Water Storage tanks 6,000 gallons and greater.

USES, APPLICATIONS

- Potable water storage
- Chemical storage tanks
- Wastewater clarifiers
- Plating vats
- Equipment supports
- Oil Storage tanks
- Catwalks

PRODUCT ADVANTAGES

- High impact resistance
- Superior adhesion to concrete
- Resistance to a broad range of chemicals
- Can be applied in a one-coat application up to 1.016 microns/1.0 mm
- Can be sprayed using single or plural component airless equipment

Note: ANSI/NSF 61 Drinking Water System Components 19JG Water Use Temp.: 23°C For use with tanks > 6,000 Gallons, not exceeding a surface area to volume ratio of 20 cm²/L. Product must be used with HT Primer.

CHEMICAL RESISTANCE

Stonchem 341 is formulated to resist a broad range of chemicals, such as fuels, salts, alkalis, and many acids.

COLORS

Stonchem 341 is offered in light gray.

Note: Light gray is the only color approved for potable water applications.

PACKAGING

Stonchem 341 is supplied in pre-measured 5 gallon units for application with single or plural component spray equipment.

One unit consists of:

- (1) 1 gallon can of amine
- (1) 5 gallon pail of resin

FILM THICKNESS

Stonchem 341 is typically applied at 1016 µm/1.0 mm in a one-coat application.

COVERAGE

The coverage of Stonchem 341 is 12 m²/gal at 1016 µm/ 1.0 mm

STORAGE CONDITIONS

Keep Stonchem 341 products tightly sealed in their original containers until ready for use. Store at 10 to 29°C, out of direct sunlight. Properly stored, Stonchem 341 products have a shelf life of one year. To ensure maximum film build, Stonchem 341 should be used within 3 months of the manufacture date.

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	48 N/mm ²
Flexural Strength (ASTM D-790)	74 N/mm ²
Flexural Modulus of Elasticity (ASTM D-790)	40.6 × 10 ³ N/mm ²
Hardness (ASTM D-2240, Shore D)	75
Pot-life (@24°C)	45 to 60 min.
Cure Time (Approx.) (@ 24°C)	Dry To Touch - 12 hours Firm - 24 hours
Chemical Service -	36 hours

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.

Proper job site storage of Stonchem 341 is essential to its performance. Follow these general procedures for storage at the job site:

Store components (amine and resin) unopened, in a dry place at 10 to 29°C, out of direct sunlight and protected from the elements. Keep away from heat and flame. For the 24 to 48 hours just prior to use, narrow the storage temperature to 21 to 29°C to facilitate ease of mixing.

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.

MASKING & PROTECTION

Mask or remove adjacent surfaces and equipment that are not to be lined. Once applied, Stonchem 341 is difficult to remove.

Protect nearby pumps, motors and other equipment from spent abrasive venting from the tank during blasting.

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 15 to 27°C.

Measure the surface temperature with a surface thermometer. Cold areas must be heated until the slab temperature is above 10°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 (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.

EQUIPMENT

Single Component Airless Spray

All pumps and hoses must be in proper working order, clean and free of foreign matter. Use an air motor with a compression ratio of 45:1 or larger, such as Graco's King Airless Spray Pump.

All filters should be removed from the pump. Use a 0.95 cm spray hose from pump to gun, not to exceed 30.5 m. It is best to bring the material directly to the gun body and not go through a tube in the handle.

The size of the airless spray tip will depend upon the area being sprayed, the viscosity, and the temperature of the materials. Use sizes from 0.48 cm to 0.89 cm. If using an inline filter, use a 60-mesh screen.

The mixed material temperature should be 24 to 38°C for best spraying.

Note: Ambient temperatures above 29°C will shorten pot life.

To prepare the material for spraying, mix the resin until the color is well blended; then, mix the resin and amine together for 2 minutes using the Jiffy mixer.

When using a 45:1 spray pump, set the mixed material under the pump (it is best to remove the siphon tube and pump directly from the bottom of the pump) and start spraying. The air pressure required will vary between 0.38 N/mm² to 0.45 N/mm². If using a 56:1 spray pump, the siphon tube may remain attached.

When spraying is complete, solvent purge the lower unit and spray gun, then remove the bottom ball valve and clean thoroughly.

Plural Component Spray

Use a fixed ratio (4:1 by volume) plural component spray rig such as a Graco King Hydro-Cat (or equal) with heated hoppers, heated hoses to a mixer manifold through a static mixer to a 15.24 m. whip hose followed by a silver gun (Binks 1M or equal) utilizing self-cleaning reverse "A" tips from 0.48 to 0.88 cm. See equipment specifications for more details.

Note: The resin should be at a minimum of 43°C and the amine side at 32 to 38°C. This will ensure proper spraying of Stonchem 341. Take care to prevent the mixed material from setting up in the hoses. For best results, keep the hoses as short as possible, purge them immediately if work is interrupted, and keep them out of direct sunlight and insulated from hot surfaces.

APPLYING

Priming

Vacuum before priming and make sure the substrate is dry. The use of HT Primer is necessary in all applications of Stonchem 341. 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 341. Allow 5 hours for cure.

Mixing – Single Component Airless Spray

We recommend using Jiffy type mixers for all mixing and stirring. When operating the mixer, avoid plunging it up and down in the bucket. This can fold air into the resin, which may cause bubbles to form in the coating after it has been applied.

Individually stir each separate amine and resin component to a smooth, uniform consistency and color. Any sediment in the container must be thoroughly scraped up and redispersed.

Spraying

Immediately before applying a spray coat, stripe edges with a brush-coat to assure adequate protection of these areas. All spray equipment should be clean and in proper working order. Contact Stonhard's Technical Service Department for start-up and clean-up procedures. Adjust pressure to 0.34 to 0.48 N/mm² and open the valves at the manifold and purge materials at the spray gun. Attach spray tip and begin to spray. Depending upon tip size, each pass will be 200 to 350 μm per pass. Apply material to the specified thickness.

Apply criss-cross multi-passes, moving the gun at a fairly rapid rate, maintaining a wet appearing film. Use a wet film thickness gauge to monitor film build.

CURING

Stonchem 341 will be dry to the touch in 12 hours at 24°C, will be firm to the touch in 24 hours at 24°C, and will be suitable for chemical service in 36 hours at 24°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. Scrub the first coat with soap and water and thoroughly rinse and dry it.

If the first coat cures more than 24 hours, lightly sand or mechanically abrade the surface after scrubbing it down with soap and water.

Any surface to be touched up or recoated should be protected. When the recoat material is applied, the substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance.

RECOMMENDATIONS

- Apply only on a clean, sound, properly prepared substrate.
- Minimum ambient, material and surface temperature is 10°C at the time of application.
- Maximum ambient, material and surface temperature is 32°C, 29°C and 32°C respectively at the time of application.
- Relative humidity should be between 0 to 85%.
- Substrate temperature should be 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 clean up of Stonchem 341 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 341 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

- Material Safety Data Sheets for Stonchem 34I are available on line at www.stonhard.com under Tech Info or upon request.
- Specific information regarding the chemical resistance of Stonchem 34I is available through 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's products.
- Requests for technical literature or service can be made through local sales representatives and offices 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.

Rev. 12/10
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