

PRODUCT DESCRIPTION

Stonchem 403 is a 100% solids polyurea lining system applied at a nominal thickness of 1.3 to 3.2 mm, depending on conditions of use. This high build coating provides a durable, flexible, waterproof membrane that can withstand significant impact and abrasion. This system can be applied over a broad range of substrates and in varied environmental conditions. Extremely rapid cure reduces down time. Stonchem 403 has excellent resistance to petroleum products, caustics and moderate concentrations of acids.

USES, APPLICATIONS

- Wastewater treatment/storage
- Secondary containment areas
- Bulk tank farms
- Waterproofing
- Tank liners
- Ponds
- Scrubber decks
- Chutes
- Hopper cars
- Mechanical rooms
- Parking structures
- Helicopter decks
- Refrigerators/freezers
- Truck loading ramps
- Flexible deck flooring
- Pump mezzanines

PRODUCT ADVANTAGES

- 100% solids (solvent-free)
- Non-skid surface
- Superior abrasion resistance
- Minimal installation time
- Seamless and monolithic
- Suitable for a broad range of substrates
- Water tight
- Can be applied in cold/damp environments
- Extremely flexible

CHEMICAL RESISTANCE

Stonchem 403 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 400 Series Chemical Resistance Guide, which lists reagent concentration and temperature recommendations

COVERAGE

One gallon of Stonchem 403 will cover approximately 149 m² per microns of application thickness. Coverage per gallon for typical thicknesses are as follows:

PHYSICAL CHARACTERISTICS

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|---|---|
| Tensile Strength (ASTM D-638) | 15.86 N/mm ² |
| Hardness (ASTM D-2240, Shore D) | 46 |
| Abrasion Resistance (ASTM D-4060, CS-17) | 0.02 gm max. weight loss |
| Elongation. (ASTM D-638) | 400% |
| Hydrostatic Pressure Resistance Test (ASTM D-5385, 231 ft. of water) | Pass |
| Low Temperature Flexibility Test - (ASTM D-1970, 180° Bend) | -29°C Pass |
| Coefficient of Friction (ASTM D-2047) | 0.9 |
| Cure Rate. | 10 minutes for water exposure 2 hours for foot traffic 12 hours for normal operations |
| Color. | Dark Gray |

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.

PACKAGING

Stonchem 403 is supplied in pre-measured units for application with 1:1 ratio, plural component spray equipment. Each unit consists of:

- (1) 50 gallon drum of isocyanate
- (1) 50 gallon drum of amine resin

or:

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

Thickness

762 microns
1270 microns
3175 microns

Application Coverage

5.0 m²
3.0 m²
1.2 m²

STORAGE CONDITIONS

Store all components of Stonchem 403 between 10 to 32°C in a dry area, out of direct sunlight.

BE SURE TO HANDLE AND STORE PROPERLY.

The shelf life is one year in the original, unopened container.

SURFACE 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.

PRIMING

All concrete surfaces must be primed with HT Primer or Urethane Primer. The primer should be allowed to become tack-free prior to installing Stonchem 403. For other surfaces, consult Stonhard's Technical Service Department.

APPLYING

Stonchem 403 is applied directly over the tack-free primer. Spray apply the liquids at a 1:1 ratio over the substrate at the specified mil thickness. Use plural component spray equipment specifically designed for the application of polyurea. Consult Stonhard's Technical Service Department for further detail.

CURING

The surface of Stonchem 403 will be tack-free in 1 to 2 minutes at 21°C. The coated area may be put back into service in as little as one hour at 21°C, conditions permitting.

RECOMMENDATIONS

- Apply only on clean, sound, dry and properly prepared substrates.
- Minimum ambient and surface temperatures are 13°C at the time of application.
- Maximum surface temperature should not exceed 32°C during application. **Substrate temperatures above 38°C will drastically affect the working time of the product.**
- Substrate temperature should be greater than 3°C above dew point.
- Material should not be applied if humidity is above 85%.
- Application and curing times are dependent upon ambient and surface conditions. Consult Stonhard's Technical Service Department if conditions are not within recommended guidelines.

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.

PRECAUTIONS

- Toluene or Xylene solvents are recommended for clean up of Stonchem 403 isocyanate or amine 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 403 amine and isocyanate, as they may cause skin, respiratory and eye irritation.
- **The use of NIOSH/MSHA approved respirators using an organic vapor gas cartridge is recommended. Respirators may be required for confined space applications.**
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles and impermeable nitrile gloves is highly recommended.
- In the event of accidental eye contact, immediately flush eyes with copious amounts of water for 15 minutes and seek medical attention.
- If material is ingested, immediately contact a physician. **DO NOT INDUCE VOMITING.**
- Mechanical ventilation is recommended. Inhalation of vapors may cause severe headaches, nausea and possibly unconsciousness.

NOTES

- Material Safety Data Sheets for Stonchem 403 are available upon request.
- Specific information regarding the chemical resistance of Stonchem 403 is available in the Stonchem 400 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 service or literature can be made through local sales representatives and offices or corporate offices located worldwide.

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