

DESCRIPTION

WATERSAFE® II is formulated for high tensile and elongation properties to bridge cracks and accommodate movement on cementitious substrates. WATERSAFE® II is ANSI/NSF 61 compliant as tested by an ANSI accredited lab and is approved for direct contact with potable water. It is a fast setting, rapid curing, 100% solids, flexible aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature during processing allowing application in most temperatures.

FEATURES

- ANSI/NSF 61 compliant for Potable Water
- 100% solids, no solvents, and Zero VOCs.
- Excellent thermal stability.
- Meets USDA criteria for incidental food contact.
- Low temperature flexibility.
- Installed with or without reinforcement in transitional areas.

RECOMMENDED USES

- Concrete/steel water storage tanks.
- Food processing plants.
- Secondary containment.
- Marine environments.

COLORS

WATERSAFE® II is available in SPI standard colors (Sand, Medium Grey, and Black). Customer colors available upon request. Note: WATERSAFE® II is an aromatic polyurea. Therefore, with all aromatics, color change and superficial oxidation will occur. Aliphatic urethane and other suitable topcoats can be used where long-term color stability and increased longevity in full sun exposure are of critical importance.

PACKAGING

This product sold in standard 110 gallon drum and 550 gallon tote sets. Available in other container sizes, contact sales representative for further information. Non-standard containers may require a longer lead time.

DRY PROPERTIES

@ 62 mils (1.57 mm)	
Tensile Strength ASTM D412	± 4,000 psi (28 mpa)
Elongation ASTM D412	550 ± 50
Hardness (Shore A) ASTM D2240	88.3 ± 5
Hardness (Shore D) ASTM D2240-81	40.3 ± 5
Service Temperature	-40° - +248F° (-40° - +120°C)

*All cured film properties are approximate since processing parameters, ad-mixture types, and quantities will change physical properties of the cured elastomer.

All samples for above tests were force cured or aged for more than three weeks. It is recommended that the user perform their own independent testing.

The samples for tests were sprayed with a Graco HXP3 @2500 psi dynamic (17 mpa). Primaries/Hose Heat 170°F (77°C) MP Fusion Gun with 29/29 module and .040 ceramic tip. *The 248°F is intermittent dry exposure. Maximum water temperature of 150°F.

WET PROPERTIES

Solids by Volume	100%
Solids by Weight	100%
Volatile Organic Compounds	0 lbs./gal (0 g/l)
Theoretical Coverage DFT	1600 sq. ft./gal @ 1 mil
Weight per gallon (approx.)	8.8 lbs. (3.99 kg)
Number of coats	1 - 2
Pot Life @ 150°F	5 - 8 secs.
Recommended applied thickness	> 60 mil (1.5 mm)
Return to Service: Dependent on substrate and ambient temperatures	Foot Traffic: 1-4 hours Full Service: >24 hours
Mix Ratio	1 "A" : 1 "B"
Viscosity (cps)	A: 1500 ± 100 B: 325 ± 25
Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)	"A" Six Months "B" One Year

Minimum material/container temperature for application is 70°F (21°C).

CURING SCHEDULE

Gel	5 - 8 sec.
Tack Free	30 - 45 sec. (thickness and substrate temperature dependent)
Recoat	0 - 6 hours
To Immersion	24 hours

TEST INFORMATION

ABRASION RESISTANCE ASTM D4060 1000 g - 1000 cycles	CS-17 wheel	1.6 mg loss
	Index 0.037 mg/cycle	
POTABLE WATER CERTIFICATION US ANSI NSF-61	Pass	

SURFACE PREPARATION

Apply WATERSAFE® II only to clean, dry, sound surfaces free of loose particles or other foreign matter. WATERSAFE® II can be sprayed over a broad range of ambient and substrate temperatures.

It is recommended that WATERSAFE® II be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness.

The polyol "B" component must be thoroughly power mixed each day, prior to use.

Follow the instructions attached to "A" and "B" containers.

When applying WATERSAFE® II over new and old concrete; Refer to SSPC-SP13/NACE 6, or ICRI 03732:CSP 3-5 New concrete must be cured for 28 days prior to product application.

Contact technical service personnel for specific recommendations and pricing. As well as the availability of spray and auxiliary equipment.

RECOMMENDED EQUIPMENT SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 2500 psi (17 mpa) dynamic pressure with heating capabilities to 175° F (79 °C) will adequately spray WATERSAFE® II. These include: GRACO Reactor E-XP2, H-XP2, H-XP3, or PMC PHX series, GH-25 3000, GH-40 3500. Gun models include GRACO Fusion MP, Gap Pro, GX7-DI, and GX-8 Pro gun.
- Pre-heater temperature should be at 160° – 170°F (+71° - +77°C).
- Hose temperature should be at 160° – 170°F (+71° – +77°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 140° – 150°F (+60° – +66°C)
- Physical properties will be enhanced when sprayed at higher pressure 3000 psi (21 mpa) or more.
- Other application equipment may be acceptable depending on product and application. Contact SPI technical service for specifics.

MIXING & THINNING

WATERSAFE® II may not be diluted under any circumstances. Thinning is not required. Using any thinner may adversely affect product performance. Thoroughly mix Part "B" (resin side) with approved air driven power equipment until a homogenous mixture and color is obtained.

GENERAL APPLICATION INSTRUCTIONS

WATERSAFE® II should be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness.

Minimum material/container temperature for spray application 70°F (21°C).

Undried air exposed to liquid components will reduce physical properties of the cured coating.

Do not open until ready to use. Both Part "A" and "B" containers must be fitted with desiccant device during use.

Note: The material supplied is two components (Component "A"/Component "B") used to formulate this product. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

LIMITATIONS

This product is for professional use only.

This product must be stored at temperatures above 60°F. Avoid freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground.

Both Side "A" and "B" materials should be preconditioned to 70 – 80°F (21° - 27°C) before application.

Apply product when surface and air temperatures are above 40°F (5°C) and the surface temperature is at least 5°F (3°C) above dew point and rising.

Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected, CO₂ created pressure can develop. Do not attempt to use contaminated material.

The aforementioned data on this product is to be used as a guide and is subject to change without notice.

GENERAL SAFETY, TOXICITY, & HEALTH

Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. CHEMTREC EMERGENCY NUMBER 1-800-424-9300 INT'l 1-703-527-3887.

WARNING: Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. Causes eye damage. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product. Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing. Causes skin burns and may cause allergic reaction. **IF ON SKIN (or hair):** Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse.

RESPIRATORY PROTECTION: Harmful if inhaled and may cause allergy or asthma symptoms. Use a respirator approved for isocyanates and organic vapors. If you are not sure, or not able to monitor levels, or if you are spraying in an enclosed/indoor area, use MSHA/NIOSH approved supplied air respirator. Consider the application and environmental concentrations when deciding if additional

protective measures are necessary. **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician IF you feel unwell.

INGESTION: Do not take internally. Harmful if swallowed. **IF SWALLOWED:** Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor/physician IF you feel unwell.

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