

# SPECTRALOCK<sup>®</sup> 2000 IG

DS-30-0221

# Globally Proven Construction Solutions



# 1. PRODUCT NAME

SPECTRALOCK® 2000 IG

# 2. MANUFACTURER

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# **3. PRODUCT DESCRIPTION**

SPECTRALOCK 2000 IG is a highly chemical resistant industrial grade epoxy grout for: ceramic tile, pavers, floor brick, packing house tile, and stone. SPECTRALOCK 2000 IG is supplied as factory proportioned kits consisting of epoxy resin, hardener, and silica filler.

Equipped with Microban Anti-Microbial Protection

# SPECTRALOCK 2000 IG #2Unit Pail with #22 Midnight Black (2000-SL0001-21)

This product is recommended and designed for use in installations where the highest chemical resistance is necessary. These would include areas where there is heavy use of no-rinse cleaners, commonly known as "back-of-house" installations such as commercial kitchens. This product uses SPECTRALOCK #22 Midnight Black Part C Powder only (Included in pail).

#### SPECTRALOCK 2000 IG Grey #2 Unit Pail (2000-SL0001-23) and #4 Commercial Unit liquids (S-2000C-SL-03 / S-2000P-SL-03)

These products are recommended to be used within applications such as; commercial "front-of-house" and other general commercial and industrial type projects. These products can be used with ALL LATICRETE SPECTRALOCK Grout Part C Powders (except #44 Bright White).

#### Uses

- Use in corrosive environments such as:
- Industrial—bakeries, dairies, cheese factories, breweries, CIP rooms, meat packing plants, soft drink plants, confectioneries, canneries, distilleries, pharmaceutical factories, veterinary hospitals, clinics and kennels.
- Commercial—institutional kitchens, fast food restaurants, cafeterias, laboratories, supermarkets.

#### Advantages

- High chemical resistance
- Improved temperature resistance
- Maximum physical strength
- Equipped with anti-microbial technology to protect the treated article.
- Highly resistant to bacteria attack
- Exceeds ANSI 118.3 (Epoxy) and ANSI 118.5 (Furan) performance requirements
- Water cleanable
- Fast curing
- · Cures at low temperature

#### **Suitable Substrates**

- Ceramic Tile
- Ceramic Tile and Stone
- Ceramic Tile and Stone
- Ceramic Tile with Glazed or Smooth Surfaces
- Existing Ceramic Tile
- Existing Ceramic Tile and Stone
- Expanded Polystyrene
- Glazed Ceramic
- Glazed Porcelain
- Natural Stone
- Polished Granite
- Porcelain tile
- Porcelain Tile with Glazed or Smooth Surfaces
- Sealed natural stone
- Stone

- Tile
- Tile or Stone

# Packaging

# # 4 Unit Carton (Liquid Only)

Unit Weight 16 lb (7.3 kg); 56 Cartons Per Pallet **# 2 Unit Pail (Liquid Only)** Unit Net Weight 10.5 lb (4.8 kg); 48 Pails Per Pallet **# 2 Unit Pail Kit (Complete Unit – Grey and Black)** Unit Net Weight 28.5 lb (12.96 kg); 48 Pails Per Pallet

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# Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years.

# Limitations

#### SPECTRALOCK 2000 IG #2Unit Pail with #22 Midnight Black (2000-SL0001-21)

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#### SPECTRALOCK 2000 IG Grey #2 Unit Pail (2000-SL0001-23) and #4 Commercial Unit liquids (S-2000C-SL-03 / S-2000P-SL-03)

These products are recommended to be used within applications such as; commercial "front-of-house" and other general commercial and industrial type projects. These products can be used with ALL LATICRETE SPECTRALOCK Grout Part C Powders (except #44 Bright White).

 Maximum chemical resistance is achieved in seven (7) days at 70°F (21°C). Protect from exposure to strong chemicals until fully cured; at colder temperatures it takes longer to achieve full cure.

- For interior use only.
- Grouts for ceramic tile, pavers, brick and stone are not replacements for waterproofing membranes. When a waterproofing membrane is required, use a LATICRETE<sup>®</sup> Waterproofing Membrane (see Section 10 FILING SYSTEM).
- Please consult with LATICRETE Technical Services for specific recommendations, if grout will be exposed to chemicals other than those indicated on the chemical resistant chart.
- LATICRETE recommends using the #2 2000IG liquids with #22 BLACK SPECTRALOCK powder for all backof-house / commercial restaurant installations where the use of enzymatic cleaners is common. For all other installations the #4 units can be used with all colors (except bright white).

# Cautions

SPECTRALOCK 2000 IG #2Unit Pail with #22 Midnight Black (2000-SL0001-21)

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SPECTRALOCK 2000 IG Grey #2 Unit Pail (2000-SL0001-23) and #4 Commercial Unit liquids (S-2000C-SL-03 / S-2000P-SL-03) These products are recommended to be used within applications such as; commercial "front-of-house" and other general commercial and industrial type projects. These products can be used with ALL LATICRETE SPECTRALOCK Grout Part C Powders (except #44 Bright White). Consult SDS for more safety information.

- Protect finished work from chemical exposure, dirt and traffic until fully cured.
- See MAINTENANCE (Section 8) for care, cleaning, maintenance and warranty requirements.
- Until cured, SPECTRALOCK 2000 IG could cause skin burns and eye damage. Wear protective gloves, protective clothing, and eye protection. In case of contact, flush thoroughly with water.
- Do not take internally. Silica sand may cause cancer, respiratory irritation or serious lung problems. Do not breathe dust. Wear a respirator in dusty areas.
- Because propane gas heaters will cause epoxy grouts to yellow, refrain from using such heaters or properly vent all exhaust.
- Keep out of reach of children.
- Epoxy Resins may affect the color of white or porous stones (such as White Carrara, Thassos white, royal Danby, etc.).
- Test stones for compatibility with water and cleaning additive mixture
- Conduct a test area to determine compatibility with metal or steel tile

# 4. TECHNICAL DATA

MICROBAN

RAPI

# VOC/LEED Product Information

This product has been certified for Low Chemical Emissions (ULCOM/GG UL2818) under the UL GREENGUARD Certification Program for Chemical Emissions for Building Materials, Finishes and Furnishings (UL 2818 Standard) by UL Environment

#### **Applicable Standard**

- ANSI A118.3
- ANSI A118.5
- ISO 13007-1 RG

#### **Physical Properties**



#### Registration #143530

NSF Registration assures inspection officials and end users that formulation and labels meet appropriate food safety regulation. NSF International launched its voluntary Non-food Compounds Registration Program in 1999 to re-introduce the previous authorization program administered by the U.S. Department of Agriculture (USDA).

EVALUATION PER ANSI A118.3		
PROPERTY	VALUE	
TEST/ NO.	EVALUATION	REQUIREMENT
Water Cleanability (E5.1)	Pass	80 min.
Initial Setting Time (E5.2)	Pass	> 2.0 hrs.
Service Setting Time (E5.2)	Pass	< 7 days
Shrinkage (E5.3)	0.07%	< 0.25%
Sag (E5.4)	Pass	no change
Quarry Shear Bonds (E5.5)	2200 PSI (15.2 MPa)*	> 1000 psi (6.9 MPa)
Compressive Strength (E5.6)	8300 PSI (57.2 MPa)	> 3500 psi (24 MPa)
Tensile Strength (E5.7)	3000 PSI (20.7 MPa)	> 1000 psi (6.9 MPa)
Thermal Shock (E5.8)	2100 PSI (14.5 MPa)	> 500 psi (3.4 MPa)

# EVALUATION PER ANSI A118.5

Tile Failed During Test TCA-061-93

Grout Test Property **Evaluation** Method Requirement 9255 PSI 3000 psi (21 MPa) Compressive ASTM C579 Strength (63.8 MPa) 2672 PSI (18.4 MPa) 400 psi (2.75 MPa) Tensile Strength ASTM C307 0.19% Absorption ASTM C413 Max. 1% 5300 psi (37 MPa) Modulus of 600 psi ASTM C580 Rupture (4.1 MPa) Initial Set, Hours ASTM C308 2 Max 5 Final Set, Days ASTM C308 6 Max 7 Linear Shrinkage ASTM C531 0.07% Max. 1% Working Time ASTM C308 80 Min. 10 Minutes 150 psi (1 MPa) Bond Strength ASTM C321 Pass\*\*

#### \* Brick Failed During Test

SERVICE TEMPERATURE RANGE***	
Intermittent Exposure	up to 360°F/182°C
Constant Exposure	up to 185°F/80°C

\*\*\*Service Temperature Exposure defined as:

Intermittent—where hot materials, liquids or steam come in contact with grout for a short time.

**Constant**—where grout is subjected to continuous heat such as under a bakery oven.

#### **Time to Traffic**

CURE TIME			
FLOOR TEMPERATURE	TIME TO LIGHT TRAFFIC <sup>^</sup>	TIME TO HEAVY TRAFFIC^^	FULL CURE^^^
50°F (10°C)	20 Hours	32 Hours	8 - 10 Days
60°F (16°C)	11 Hours	24 Hours	7 Days
70°F (21°C)	8 Hours	16 Hours	7 Days

^ Foot Traffic

^^ Place Equipment
^^^ Exposure to Chemical and Heat

# **Working Properties**

(70°F [21°C])

Working Time	80 minutes
Wet Density	12.2 lb/gal (1.5g/mL)

#### **Chemical Resistance**

#### Chemical Resistance<sup>1</sup> Chart at 70°F (21°C)

Chemical Resistance <sup>®</sup> Chart at 70°F (21°C)			
Chemical Name	Continuous Exposure	Inter- mittent Exposure	Splash Exposure
	Food Ac	ids	
Lactic to 10%	R	R	R
Acetic to 10%	R	R	R
Formic to 5%	R	R	R
Citric to 50%	R	R	R
Tartaric to 50%	R	R	R
Tannic to 50%	R	R	R
Oleic to 100%	R	R	R
Phosphoric to 80%	R	R	R
Mineral Acids			
Hydroflouric acid <sup>2</sup> 10%	R	R	R
Sulfuric to 50% <sup>2</sup>	R	R	R
Nitric to 30% <sup>2</sup>	R	R	R
Hydrochloric to <sup>2</sup> 36.5%	R	R	R
Corrosive Cleaners			
Sodium Hypochlorite <sup>2</sup> (Bleach) 3%	R	R	R
Sodium Hydroxide (Saturated)	R	R	R
Solvents			
Xylene	R	R	R
Ethyl Alcohol	R	R	R
Mineral Spirits	R	R	R
Toluene	R	R	R

Methylene Chloride	NR	NR	NR
Gasoline	R	R	R

<sup>1</sup>Chemical Resistance defined as:

**Splash**—minor spill wiped up quickly such as in a laboratory.

**Intermittent**—Exposure to chemicals where clean up takes place several times a day such as in a commercial kitchen.

**Continuous**—heavy exposure to chemicals where clean up is less frequent such as in an industrial food plant. **R=Recommended**, **NR=Not Recommended**. Chemical Resistance determined in accordance with ASTM C267. <sup>2</sup>Long Exposure will cause color change.

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

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### **5. INSTALLATION**

Refer to SPECTRALOCK  $^{\otimes}$  2000 IG How to Install Guide DS 004.5 for more information.

#### Surface Preparation

Before starting to grout remove spacers and debris in grout joints and remove dust and dirt using a damp sponge. Allow to dry. Do not leave water standing in joints. Do not clean tiles with acid cleaners. Substrate temperature must be between  $45^{\circ}F$  (7°C) and 90°F (32°C).

Note: Temperature will affect working properties of SPECTRALOCK 2000 IG. Warm temperatures will speed curing and shorten working time. Cool temperatures will slow curing and require longer time to traffic. Store SPECTRALOCK 2000 IG (including Part C) at 70°F (21°C) for 24 hours prior to use.

#### Mixing

Pour SPECTRALOCK 2000 IG Part A and Part B into a clean mixing pail and mix thoroughly with a drill mixer until liquids are completely blended. Add all of the Part C powder. The mix will look thick at the beginning. Whip it thoroughly with high speed mixer (>450 rpm) until uniformly blended (Minimum 2 Minutes). This will aerate the grout to a very fluffy mix.

#### Application

For maximum pot life, remove grout from bucket and spread on floor or plastic sheeting. Spread the grout with sharp, firm rubber grout float. Work the grout paste into the joints. Insure the joint is filled and grout is not sitting on top. Remove excess grout from the face of the tiles with the edge of the grout float. Hold the float at 90° angle and pull it diagonally across the joints and tile to avoid pulling out the material.

# Initial Cleaning – USE INITIAL WASH CLEANING ADDITIVE.

Once grout has been spread, wait approximately 30 minutes at 70°F (21°C) prior to beginning initial wash. Add Initial Wash cleaning additive to 2 gals (7.6 L) of clean water and mix until fully dissolved. Do not mix cleaning additive with grout. Wipe grout joints and tile surface with a white nylon pad and plenty of water (with the cleaning additive) using a circular motion. Drag a damp clean sponge diagonally over the scrubbed surface to remove grout residue.

# **Final Cleaning** – USE FINAL WASH CLEANING ADDITIVE.

Wait at least 90 minutes after the initial wash at 70°F (21°C) for the final wash using the same procedure as in the initial wash. Prepare another two gallons of clean water and add the Final Wash cleaning additive and mix until fully dissolved. In the final wash avoid contact with the grout – clean tile surface only.

# 6. AVAILABILITY AND COST

### Availability

LATICRETE materials are available worldwide.

### For Distributor Information, Call:

Toll Free: 1.800.243.4788 Telephone: +1.203.393.0010 For on-line distributor information, visit LATICRETE at laticrete.com

#### Cost

Contact a LATICRETE Distributor in your area.

# 7. WARRANTY

- See 10. FILING SYSTEM:
- DS 230.10: 10 Year System Warranty
- DS 230.10IG : 10 Year Commercial Kitchen Industrial Application System Warranty
- DS 230.15APD: LATICRETE 15 Year Tile & Stone System Warranty
- DS 025.0: 25 Year System Warranty
- DS 230.13: 1 Year Product Warranty

#### 8. MAINTENANCE

- All stone and tile should be maintained and sealed with LATICRETE® STONETECH® professional products as appropriate for the specific tile/stone and installation situation.
- Rinsing of cleaner residue and debris with a clean water rinse is required to maintain product and systems warranty.
- Rinse fatty acid residue from grout and tile surface to avoid potential grout deterioration caused by prolonged exposure.

- Protect surfaces from common stains by using a STONETECH Bulletproof Sealer.
- Routine maintenance should follow with STONETECH Revitalizer<sup>®</sup> Cleaner and Protector or a neutral pH cleaner such as STONTECH Stone & Tile Cleaner.
- For tough or difficult to remove soil use STONTECH KlenzAll Cleaner, a nylon scrubbing pad or a long handled stiff bristle brush.
- For additional information, please refer to the TDS 400 Grout Guide.

### 9. TECHNICAL SERVICES

#### **Technical Assistance**

Information is available by calling the LATICRETE Technical Service Hotline:

Toll Free:	1.800.243.4788, ext. 1235
Telephone:	+1.203.393.0010, ext. 1235
Fax:	+1.203.393.1948

#### **Technical and Safety Literature**

To acquire technical and safety literature, please visit our website at <u>laticrete.com</u>.

#### **10. FILING SYSTEM**

Additional product information is available on our website at <u>laticrete.com</u>. The following is a list of related documents:

- DS 230.13: LATICRETE® Product Warranty
- DS 230.10IG: LATICRETE 10 Year Commercial/Industrial Kitchen System Warranty (United States and Canada)
- DS 236.0: 9235 Waterproofing Membrane
- DS 663.0: HYDRO BAN®
- DS 004.5: SPECTRALOCK® 2000 IG How to Install

United States Invention Patent No.: 6,881,768 (and other Patents)