

# **SC500**

DS-57.1-0425

# Globally Proven Construction Solutions



### 1. PRODUCT NAME

SC500

#### 2. MANUFACTURER

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#### 3. PRODUCT DESCRIPTION

SC500 is a fire-rated, high-flowing low-akali cement-based self-leveling underlayment for large-scale new or existing interior projects, allowing floor coverings in just 16 hours. Designed for use with SUPERCAP high-volume pumping equipment, 30,000 lbs (13,607 kg) can be pumped in as little as 1 hour up to 3 inches (76 mm) in a single lift and walkable in 2 to 4 hours, reducing overall project time and cost. An option for fire-rated construction, SUPERCAP SC500 is UL-certified for fire resistance for up to 2 hours in fire-rated floor-to-ceiling assemblies. It outperforms traditional gypsum underlayments with rapid cure times, increased durability, superior water resistance, and direct compatibility with flooring adhesives.

Ideal for use over concrete, gypsum, exterior glue plywood, and other flooring substrates, it creates a smooth, level surface ready for hardwood, resilient flooring, cork, ceramic, stone, carpet, and more.

#### Uses

- Commercial, retail (malls & shops)
- Health care, hospitals
- Education (schools & universities)
- Residential
- Hotels

# **Advantages**

- Used with SUPERCAP high volume pumping equipment: 30,000 lbs. (13,607 kg) of self-leveling an hour
- UL-certified fire resistant for up to 2 hours to meet building code requirements
- UL Certification Type "LAT": Tested in accordance to ANSI/UL 263 (ASTM E119) & ASTM E84
- Extended gel time to assist in aggressive situations such as hot weather
- Eliminates the need for power troweling concrete.
- Eliminates dust, staging material and noise within a building
- Can be installed for 1/8" to 3" (3 to 76mm) and tapered to zero at edges
- Self-drying formula: Finished floor goods may be installed as soon as 16 hours after application
- Surface is walkable in 2 to 4 hours and may be open to wheel traffic within 72 hours at 70°F (21°C).
- Can be left open to normal trade's traffic for up to 12 months prior to installation of floor coverings.
- Can be applied directly over concrete testing at RH of 100% or less per ASTM F2170
- Inorganic-based formulation will not contribute to or harbor growth of mold or mildew.
- Can be applied over approved Sound Mats, 1" minimum pour depth\*

**Note:** \* See Substrate Preparation and Primer Guide for LATICRETE Self-Leveling Products, TDS-230

## Suitable Substrates (Interior Use Only)

- Concrete (Interior Only)
- Vinyl Tile
- Wood
- · Ceramic Tile and Stone
- · Cement Mortar Beds and Screeds
- Poured Gypsum Underlayment

#### **Packaging**

2,500 lb. supersack (1,043.3 kg)

- 7350-2500-21
- 1 per pallet
- Concentrate formula available contact LATICRETE

50 lb. bag (22.7 kg)

- 7350-0050-21
- 56 bags per pallet

#### **Approximate Coverage**

Per Super Sack:

• 1100 ft2 (102 m2) at 1/4" (6 mm) depth\*

#### Per Bag:

22 ft² (2 m²) at 1/4" (6 mm) depth\*

\*Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions.

#### Shelf Life

Store in original, factory sealed container. Store off the ground in a dry area. Shelf life is 6 months from date of manufacture for bulk sacks. Shelf life is 12 months from date of manufacture for bags. Container should be kept tightly sealed when not in use.

#### Limitations

- Do not install LATICRETE SUPERCAP SC500 over Particle board, chipboard, hardboard (Masonite®), Luan panels, asbestos, gypsum-based patching materials, asphalt, coal tar, lightweight insulating concrete or any other dimensionally unstable materials.
- LATICRETE SUPERCAP SC500 is not recommended as a wear surface or for steel-wheeled traffic.
- For interior use only.
- Do not install when surface temperature is below 40°F (4°C) or above 90°F (32°C)
- Do not install over painted surfaces.
- Do not exceed recommended mixing ratio as indicated in mixing instructions. Over watering will weaken product properties.
- · Never mix with cement or admixtures.
- Do not apply LATICRETE SUPERCAP SC500 over waterproofing or crack isolation membranes. Consult LATICRETE SUPERCAP Technical Services for proper installation over moisture mitigation systems.
- Not for use in submerged applications

#### **Cautions**

Before using any LATICRETE SUPERCAP product:

- Check www.laticretesupercap.comfor any technical bulletins or updated information about the product and its application.
- Keep out of reach with children.

- Contact your local LATICRETE SUPERCAP Technical Sales Representative with any questions.
- Consult SDS for more safety information.
- Do not allow foot traffic on finished work until cured.
- Contains cement and silica sand. Causes severe skin burns and serious eye damage. Wear protective gloves and eye protection. In case of contact, flush thoroughly with water.
- Do not take internally. Silica sand may cause cancer or respiratory irritation. Do not breathe dust. Wear a respirator in dusty areas.

#### 4. TECHNICAL DATA

# **Applicable Standard**

- ANSI A118.16
- This product currently has an Industry-Wide Environmental Product Declaration (EPD). The PCR review, life cycle assessment and declaration were independently verified by UL environment in accordance with ISO 14025, ISO 14040 and ISO 14044.
- ANSI/UL 263 (ASTM E119): This standard, titled "Fire Tests of Building Construction and Materials," is used to assess the fire-resistance ratings of building assemblies, including floor/ceiling assemblies incorporating underlayments like those from LATICRETE.
- ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials, (tested by NGC Testing Services)
- o Class A
- o FLAME SPREAD INDEX 0
- SMOKE DEVELOPED INDEX 0

# **UL Floor/Ceiling Assembly Designs include:**

L501, L502, L511, L512, L518, L525, L527, L528, L529, L530, L541, L570, L573, M509, M510 See productiq.ulprospector.com for design details.

#### **Physical Properties**

Specifications are subject to change without notification. Technical data shown in LATICRETE® SUPERCAP® product data sheets and technical data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to variability of job site factors.

- 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.
- This product has a cradle-to-gate (with options)
   Product- Specific (Type III) Environmental Product
   Declaration. The PCR review, life cycle assessment

and declaration were independently verified by UL Environment in accordance with ISO 14025, ISO 14040 and ISO 14044.

Pour Depth	1/8" to 3" Average Depth (3 – 76 mm) Consult Technical Services for average depths over 3" (76 mm). Can be tapered to zero at edges.
Walkable	2 to 4 hours at 70°F (21°C)
Flexural Strength (ASTM C 1708) 28 Day Cure	1000 psi (6.9 MPa )
Compressive Strength (ASTM C 1708) 28 Day Cure	4200 psi (28.9 MPa)
Flammability (ASTM E84-14)	Flame Spread Index: 0 Smoke Developed Index: 0
Set Time (ASTM C1708)	Initial @ 30 - 60 min. Final @ 60 - 120 min.
Installed Dry Weight per square foot @½" (6mm)	2.6 lbs/ft² (12.7 kg/m²)

All results are averages and performed in lab conditions.

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.

# **5. INSTALLATION**

#### SURFACE PREPARATION

Refer to TDS 230S LATICRETE SUPERCAP Substrate Preparation and Primer Guide for more detailed surface preparation instructions.

## **PRIMING**

All surfaces must be primed prior to every LATICRETE SUPERCAP application. LATICRETE Primer Plus is a concentrate and must be diluted with clean potable water. Dilution ratio varies depending on the substrate. See DS 056.0 and TDS230S LATICRETE SUPERCAP Substrate Preparation and Primer Guide for more detailed dilution, approximate coverage and application instructions.

**Note**: Keep primed surface clean. Do not allow any foot traffic onto surface.

#### **MIXING**

Super Sacks – Pre-condition LATICRETE SUPERCAP SC500 to approved application temperature (air temperature between 50–90°F (10–32°C). LATICERETE SUPERCAP SC500 is blended by qualified LATICRETE SUPERCAP Applicators in the mobile blending unit that mixes LATICRETE

SUPERCAP products onsite at street level to manufacturer specifications.

**Bags** – SC500 should be mixed with 3.7-4.5 quarts (3.5-4.3 L) of water per 50 lb (22.7 kg) bag. Do not over water. For manual application, add product to water and mix for 2-3 min with a heavy duty drill (650 rpm) to obtain a lump free mix. Please consult with a LATICRETE representative to verify equipment compatibility when pumping. A flow test should always be performed to ensure that the mix is homogeneous and free from separation. The ideal flow range for SC500 is 10" to 12" when using a large flow ring or 5" to 6" using small flow ring.

#### **APPLICATION**

Substrate temperature must be a minimum 40°F (4°C) during application and air temperature maintained between 50–90°F (10–32°C). Protect areas from direct sunlight. If required to meet design tolerances, survey surface using a digital or electronic leveling device and apply level pegs as required. Adequate ventilation should be provided to ensure uniform cure. Pump or pour blended material onto substrate at an average thickness ranging between 1/8" to 3" (3–76 mm) for all surfaces. Material can be tapered to zero at edges.

Wood substrates require a minimum thickness of 3/4" (19 mm). Immediately following placement lightly smooth the surface and pour lines. When not using level pegs the use of a gauge rake will assist in controlling material depth. Do not expose LATICRETE SUPERCAP SC500 to rolling dynamic loads, such as forklifts or scissor lifts, for at least 72 hours after installation. Proper application is the responsibility of the user. Field visits by LATICRETE SUPERCAP personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

# FLOORING INSTALLATION (Bold References are Hyperlinks)

- Immediately before installation of flooring, as recommended by flooring and adhesive manufacturer and in accordance ASTM F2873 - Installation of Self-Leveling Underlayment & Preparation of Surface to Receive Resilient Flooring, the selfleveling surface may require preparation including cleaned of all loose material by scraping, sanding, vacuuming, and primer application or a combination thereof.
- Conduct surface review including porosity tests, surface temperature, bond testing (Mat Bond Test), and other surface evaluation as required by flooring and adhesive manufacturer and in accordance with the National Floor Covering Association (NFCA) Floor Covering Reference Manual. Also identify and report any concerns for delaminated or loose areas, surface profile and surface flatness to project manager / General Contractor for additional surface prep,

correction, adjustment before starting installation of floor covering materials.

- Always test performance, suitability, and compatibility
  of finished floor systems prior to their application.
  Conduct bond testing in accordance with flooring and
  adhesive manufacturer and ASTM F3311 Mat Bond
  Evaluation of Performance and Compatibility for
  Resilient Flooring.
- In good drying conditions (ambient air temperature 65 75°F (18 24°C) / 40 60% RH) finished floor covering may be installed as soon as 16 hours after installation of SC500.
- Non-moisture sensitive tile and stone can be applied once self-leveling underlayment is walkable, approximately 2 to 3 hours.
- Lower temperatures, higher RH, poor ventilation, and thicker self-leveling application will extend self-leveler dry time.
- SUPERCAP self-leveling products are not a vapor barrier and will allow passage of moisture vapor. Prior to installing SUPERCAP self-leveling products, the concrete must be tested for moisture conditions. If the concrete moisture conditions exceed the floor covering manufacturer's requirements for the finished flooring a moisture mitigation epoxy must be applied before installing SUPERCAP self-leveling products. Use VAPOR BAN E, VAPOR BAN ER or VAPOR BAN Primer ER prior installing SUPERCAP self-leveling products.
- Steel-wheeled traffic is not recommended as it can cause damage to the surface. Important when installing floor finishes such as VCT, LVT or sheet vinyl. Which require extremely flat surfaces.

Note: For use under decorative coatings or sealers see TDS234S – LATICRETE® SUPERCAP® Decorative Coating System Guide, or TDS 423 - Installing a SPARTACOTE™ Resinous Floor System over a Cement Self-Leveling Underlayment

# 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:

• 1 Year Product Warranty (US) (English)

#### 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 **laticrete.com**.

# **10. FILING SYSTEM**

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

- LATICRETE 1 Year Product Warranty DS230.13.
- DS 65437: Primer Plus
- DS-307 PRIME N BOND
- DS-35222 VAPOR BAN PRIMER ER
- TDS 230S: LATICRETE SUPERCAP Substrate Preparation and Primer Guide

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