

SILPRO

SILFLO® 220

High Performance Formula for Applications up to 2 inches (5cm)
Calcium Aluminate Cement-Based
Qualifies for LEED Points
Poured or Pump Applied
Polymer-Modified
Self-Drying

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SILFLO® 220 is a high performance, general-purpose, Calcium Aluminate cement-based, polymer-modified self-leveling underlayment. **SILFLO® 220** is recommended for resurfacing and leveling interior concrete, wood, cement terrazzo, quarry, and ceramic tile floors prior to the installation of resilient flooring, ceramic tile, wood flooring, laminate, or carpet.

ADVANTAGES

- Not effected by moisture
- Calcium Aluminate cement-based
- Polymer modified
- One component - ready to use, just mix with water
- No troweling
- Provides a compatible bonding surface for tile, carpet, and other adhesives
- May be pumped or drum mixed and poured
- Easy mixing, long working time
- Fast setting - open to foot traffic in 3 to 5 hours
- Self-drying

TECHNICAL DATA

Test	Test Age	Test Results
Compressive Strength (ASTM C-109)	5 hours	1500 psi
	24 hours	2500 psi
	7 days	3000 psi
	28 days	5000 psi
Compressive Strength (ASTM C-109)	1 Day	2400 psi
	7 Days	3500 psi
	28 Days	6500 psi
Working Time	Minimum 15 minutes	
Set Time (ASTM C-191)	Minimum 30 minutes	
	Maximum 100 minutes	

Typical values for material cured at 70°F, 50% RH

SURFACE PREPARATION

Surfaces must be structurally sound and free from all bond-inhibiting materials such as dust, paint, oil, curing compounds, sealers, gypsum, and adhesive buildup and residue.

Concrete: Concrete must be structurally sound, clean, and free from all bond inhibiting materials. Weak surfaces must be removed by mechanical means. All adhesive residue must be completely removed by mechanical means. Smooth concrete and/or non-porous substrate must be mechanically prepared to provide a porous and profile substrate.

Wood: Surfaces must be free of any bond-inhibiting materials such as wax, paint, oil, adhesives, loose patches, etc. The subfloor must be 3/4" thick, A.P.A. classified type 1 exterior grade plywood or solid hardwood flooring. Spaces in joints should be filled with **SKIM PRO™**.

SURFACE PREPARATION CONTINUED

All fastener heads must be flush or countersunk and the plywood should be rigid without any flex or bounce. Refasten any loose boards. Install 3.4 pounds per square yard or similar approved by **SILPRO**, galvanized, diamond lath that is overlapped at least 2 inches on all sides then mechanically attached. The lath shall be fastened every 6 inches.

Ceramic Tile/ Quarry Tile/ Cement Terrazzo: All waxes, sealers, and glazes must be removed. Remove all glazes and roughen the surface by either shotblasting or other mechanical means.

PRIMING

All surfaces must be primed with **R-2000™ PRIMER** or **SILFLO® PRIMER** prior to installing **SILFLO® 220**. The primer must be dry to the touch before applying **SILFLO® 220**. Allow the primer to dry for a minimum of 3 hours and a maximum of 48 hours. The primer dilution or modification will depend on the nature of the substrate.

Use **R-3000™ PRIMER** for metal, epoxy and other non-porous substrates.

CIE 100 EPOXY PRIMER™ is recommended for substrate crack repair and as a primer over substrates that exhibit significant cracking.

Follow all directions in the product data sheets of **R-2000™ PRIMER**, **SILFLO® PRIMER**, **R-3000™** and **CIE 100 EPOXY PRIMER™** primers.

MIXING

5 quarts per 50 lb. (22.68 kg.) bag

Manual Mixing: Mix 2 bags at a time. Place 10 quarts of water into a **SILPRO** mixing drum and add one bag of **SILFLO® 220** at a time to the water while mixing with a 7 amp, 650- rpm drill and a **MIXING PADDLE™**. Mix thoroughly for approximately 1 to 2 minutes until a lump free consistency is achieved. Extended mixing may entrap air that can cause pinholes and affect surface smoothness.

Do not add more water. Adding more water than specified can result in aggregate settling, low strength, and surface dusting and whitening.

Mixer/Pumps: **SILFLO® 220** can be mixed and applied using automated equipment developed specifically for the application of self-leveling underlayments.

Over-watering can result in surface whitening, powdering, color variations and bonding issues. The equipment must be capable of accurately and consistently metering the appropriate amount of mix water. Mix/pumps should be equipped with a means of setting the water amount per unit of powder to 5.0 quarts of **SILFLO® 220**.

For Customer Service, Call Silpro at 1-800-343-1501

APPLICATION

Pour or pump the mixed **SILFLO® 220** onto the prepared floor and spread to the desired thickness with the Spreading Tool. Smooth the surface with the Smoothing Tool within 5 minutes of placing. For large continuous pours maintain a wet edge and flow the freshly placed material into the previous pour smoothing the transition. Wear cleated shoes while placing the **SILFLO® 220** to avoid leaving marks in the fresh material.

Thickness of Application: **SILFLO® 220** may be placed from feather to 1.5" neat. **Note:** For applications above 1/2", minor surface touchups such as sanding, buffing, and/or skimming may be required. **SILFLO® 220** may be extended up to 2" with the addition of 3/8" clean, washed pea stone.

When adding pea stone, add 50lbs (22.68 kg.) of pea stone per 50 lb (22.68 kg.) bag of **SILFLO® 220**. The pea stone should be uniformly distributed throughout the mix, as well as completely coated by **SILFLO® 220**.

When installed over a wood substrate, a minimum of 3/8" of **SILFLO® 220** must be placed over the lath. When applying **SILFLO® 220** in multiple lifts, allow the previous layer to cure for 48 hours before the next application. Prime between applications (Follow instructions for priming over Porous, Absorbent Surfaces above).

Clean Up: Clean tools and equipment with water.

Do not let **SILFLO® 220** harden on tools. If it does, remove mechanically.

CURING

Prevent exposure to wind, drafts, and direct sun that could cause surface drying and wrinkling.

WAITING PERIOD FOR APPLICATION OF COVERING

Most thin-set mortar applications or floor coverings that are not moisture sensitive may be placed in as little as 6 hours. Moisture sensitive floor coverings may be installed in as little as 16 hours. Drying time may vary and will depend on a number of factors including thickness of application, temperature and relative humidity. Test the substrate prior to floor installation to ensure that it meets moisture and other requirements specified by the flooring manufacturer.

STORAGE

Store in a cool dry place. Temperature should range between 50 – 80°F. Keep out of direct sunlight. Precondition to 70°F +/- 5° prior to using.

SHELF LIFE

1 year

PACKAGING

50 lb. bag (22.68 kg.)

2500 lb. super sack (1134 kg.)

APPROXIMATE COVERAGE

24 square feet when applied at 1/4" thick per 50lb. (22.68 kg.) bag mixed with 5.0 quarts of water. Water to Powder Ratio: 5.0 quarts per 50lb (22.68 kg.) bag of **SILFLO® 220**.

LIMITATIONS

- For interior applications only.
- Apply only when surface and ambient temperatures will be 50°F and above for a minimum of 24 hours after application.
- Adding excess water will result in surface whitening and bonding issues.
- To determine the suitability of the substrate surface for adhesion and the finish for appearance including texture and color, install a 10'x10' test patch at the maximum designed thickness using the techniques, equipment, and materials to be used, for approval by the owner, architect, or contractor prior to proceeding with the job.
- All control and expansion joints must be carried through.
- Concrete must be a minimum of 7 days old.
- Concrete must be structurally sound meeting local building codes.
- Do not apply over dusting or unsound concrete.
- Substrate temperature must be 50°F. or above.
- For temperatures higher than 85°F. consult Silpro's Technical Service Dept.
- Will be damaged by construction traffic if not protected
- Lifts and heavy equipment that vibrate the floor may cause cracking or debonding.

CAUTION!

SILPRO offers products that may contain cement, latex, epoxy, and other chemicals. Please review the Safety Data Sheet before the use of this product.

GUARANTEE

Please call **SILPRO**, LLC for copy of guarantee.



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