

SILPRO

SILFLO® 230

Self-Leveling Underlayment
Poured or Pump Applied
Cement-Based
Polymer-Modified
High Performance
Wearing Surface
Up to 5" Thick
Self-Drying

SILPRO, LLC / 2 NEW ENGLAND WAY / AYER, MA 01432-1514 / 800-343-1501 / 978-772-4444 / FAX 978-772-7456 / WWW.SILPRO.COM

Silflo® 230 is a high performance, multi-purpose, cement-based, polymer-modified topping that can be used as a self-leveling underlayment or as an exposed wearing surface for interior or exterior applications applications. **Silflo® 230** can be polished to achieve the desired appearance. As an underlayment, it 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.

TECHNICAL DATA

Report Results	Test Method	Test Age	Test
Compressive Strength	ASTM C-109	1 Day	2400 psi
		7 Days	3500 psi
		28 Days	6500 psi
Working Time		Minimum 30 minutes	
Set Time	ASTM C-191	Minimum 70 minutes	
		Maximum 150 minutes	

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

ADVANTAGES

- Multi-purpose: use for thin pours, thick pours, underlayment, or wearing surface
- Recommended for all rehab projects involving concrete, tile, terrazzo, and wood surfaces
- May be pumped or drum mixed and poured
- Fast setting — open to foot traffic in 3 to 5 hours
- Self-drying

SURFACE PREPARATION

Concrete: Surfaces must be clean and free of any loose or friable materials. All bond-inhibiting materials such as paint, oil, curing compounds, sealers, gypsum, adhesives, etc., must be removed by shotblasting or other mechanical means. In most cases cutback adhesive must be removed. Refer to the Resilient Floor Covering Institute on the use of the wet scraping technique. Polished floors must be shotblasted or scarified. 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 **Silpro's Skim Pro®**. 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,

SURFACE PREPARATION (CONT.)

diamond lath that is overlapped at least 2 inches on all sides then mechanically attached. The lath shall be fastened every 6 inches on overlaps and have 8 inch centers starting from a floor joist.

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

PRIMING

All surfaces to be leveled with **Silflo® 230** must be primed. **CIE 100 Epoxy® Primer** is recommended for surfaces that will be left exposed, polished or used for exterior applications. The epoxy primer will help minimize cracking where aesthetics are a priority. Alternatively, the **Silflo® 230** may be primed with **R-2000®**. Apply primer using a soft bristle brush, or exploded tip push broom. Pour the diluted primer on the floor and sweep thoroughly to ensure that the surface is coated evenly without leaving puddles or bare spots.

Follow all directions in the product data sheets of **R-2000® Primer** and **CIE 100 Epoxy®** primers.

MIXING

Manual Mixing: Mix 2 bags at a time. Place 10 quarts of water into the **Silpro** mixing barrel. Slowly add 1 bag of **Silflo® 230** at a time to the water while mixing with a minimum 7 amp, 650-rpm drill and **Silflo®** paddle. Mix thoroughly for 2 minutes to obtain a lump-free consistency. Extended mixing may entrap air that could cause pinholes and affect surface smoothness.

Silflo® 230 may be extended with the addition of 3/8" clean, washed pea stone. When adding pea stone, add 50 lbs of pea stone per 50 lb bag of **Silflo® 230**. The pea stone should be uniformly distributed throughout the mix, as well as completely coated by **Silflo® 230**.

APPLICATION

Pour or pump the mixed **Silflo® 230** onto the prepared floor and spread to the desired thickness with **Silpro's** Spreading Tool. Smooth the surface with the **Silpro** 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® 230** to avoid leaving marks in the fresh material.

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

APPLICATION, (CONT.)

Thickness of Application: Silflo® 230 may be placed from feather to 5" neat. When installed over a wood substrate, a minimum of 3/8" of Silflo® 230 must be placed over the lath.

When applying Silflo® 230 in multiple lifts, allow the previous layer to cure for 24 hours before the next application. Prime between applications. All control and expansion joints must be carried through the SILFLO 230. If the material will be left exposed and joints are not present, cut control joints within 24 hours spaced no more than 20 feet apart

Clean Up: Clean tools and equipment with water. Do not let Silflo® 230 harden on tools. If it does, remove mechanically.

CURING

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

WEAR SURFACE

Silflo® 230 is suitable for use as a light to moderate duty wear surface, for example offices or light warehousing operations, where rubber-wheeled carts and transport devices are used.

Silflo® 230 may be used for exterior applications for light traffic and where there are minimal freeze thaw cycles. Not for use where salt or sand has or will be used. Contact SILPRO to confirm your application can be warrantied. Exterior applications not discussed with SILPRO will not qualify for a warranty.

Silflo® 230 has the hardness and abrasion resistance to function as a wearing surface. When used in this manner it can be sealed with an appropriate coating to prevent penetration of water or other liquids that may stain or impair long-term performance and also to insure uniform surface color of the finished floor in the case of a pigmented sealer. Generally, coatings developed for concrete will adhere to Silflo® 230, however it is the applicator's responsibility to confirm this by completing a test patch for approval by the owner, architect, or contractor prior to starting the job. The nature of the specific coating selected by the contractor will depend on the performance required by the customer.

The surface of the Silflo® 230 may be adequate for coating as is, however, depending on mixing and application, sanding and light patching to fill minor voids or pinholes may be necessary.

LIMITATIONS

- Silflo® 230 should only be applied over substrates that are between 55° and 90°F. (and C) Do not allow to freeze within 7 days of application.
- 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.

LIMITATIONS, CONT.

- Slabs above grade are known to have a more significant frequency of cracking due to vibration from job site equipment and polishing equipment.
- Adding excess water will result in surface whitening and bonding issues.
- Concrete must be a minimum of 7 days old.

WAITING PERIOD FOR APPLICATION OF COVERING

Most thin-set mortar applications or floor coverings that are not moisture sensitive may be placed in 12 – 16 hours. Moisture sensitive floor coverings may be installed in 48 – 72 hours for thin applications of Silflo® 230, however longer periods may be required for thick applications. Drying time will depend on a number of factors including temperature and relative humidity. Test the substrate prior to floor installation to insure that it meets moisture and other requirements specified by the flooring manufacturer.

PACKAGING

50 lb. bag (22.68 kg.)

2400 lb. super sack (1088.64 kg.)

COVERAGE

24 square feet when applied at 1/4" thick per 50 lb. bag

SHELF LIFE

1 year

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.

Concrete is known to crack and polishable toppings are not an exception. The degree of the cracks depends on a number of factors that are out of the control of Silpro. Silpro is not responsible for substrate cracks, substrate movement, slab deflection, vibration from polishing equipment, contamination from other trades, etc. that may increase the frequency of cracking. Achieving the desired appearance which includes color, cracks, aggregate, etc. are not covered by the warranty. It is the responsibility of the contractor to complete a sample to confirm that the appearance is acceptable.

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