

PRODUCT NAME

# Sure-Flo™ Plus

## High Strength Self-Levelling Underlayment



MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Savings in labor and indirect costs
- No trowelling required = *Sure-Flo PLUS* self levels
- Crack-resistant, Fire-resistant & Sound insulating
- Hard, smooth, Resilient & Water resistant surface
- No sanding or grinding required
- Pumpable
- No curing needed
- Can be featheredged
- Not a gypsum product
- Walkable after 4 to 6 hours
- Nonflammable & Nontoxic

PRODUCT DESCRIPTION

Basic Use

*Sure-Flo PLUS* is pumpable, self-levelling, fast set underlayment with a high compressive strength and very good resilience. It is designed for indoor use only as a levelling and dense layer ready for application of floor coverings. It is suitable for:

- Frozen & Rained on concrete
- Replaces concrete finishing
- Elimination of camber problems
- Uneven floor surfaces
- Quarry tile & Terrazzo

Composition and Materials

A specially formulated, cement based, shrinkage compensated self-levelling floor underlayment material supplied as Premix and mixed with water only.

Limitations

Do not apply when the temperature is expected to be below 4 °C (40 °F) within 24 hours. Not for exterior use, or where exposed to prolonged contact with water. Under rapid drying conditions, prevent from drying out too quickly. The maximum applied thickness should not exceed 19 mm (3/4 in) in one layer. The floor must be designed with maximum L/360 deflection. If a vapor barrier is applied as a finish, in slab on grade applications, it is important to make sure that there is no water vapor transfer

from below. This could cause debonding of the floor finishing material, or *Sure-Flo PLUS* leveling layer. For wood floor applications use *Sure-Flo WF* (wood floor), for traffic topping use *Sure-Flo FT 100* (floor topping 100). For exterior application use *Gem-Crete TO ST* or *Gem-Crete HF ST*.

Health and Safety

*Sure-Flo PLUS* is nontoxic and nonflammable. Your skin might be sensitive to cement. We recommend use of rubber gloves. Avoid contact with eyes and prolonged contact with skin. If contact occurs, flush immediately with water. Seek medical advice if irritation occurs. Harmful if digested. Keep product out of reach of children. FOR INDUSTRIAL USE ONLY. Consult MSDS for additional information.

Color

Cement Grey.

Packaging

*Sure-Flo PLUS Premix* is packaged in 22.7 kg (50 lb) bags.

Yield

*Sure-Flo PLUS Premix* yields 12.8 L (0.45 ft<sup>3</sup>) and covers approximately 4.3 m<sup>2</sup> at 3 mm (43.5 ft<sup>2</sup> @ 1/8") thickness per bag.

*Primer # 410* covers approximately 12 - 16 m<sup>2</sup> per L (494 - 652 ft<sup>2</sup> per USG), when mixed with equal amount of water.

Storage and Transportation

*Sure-Flo PLUS* when stored on pallets in a dry, cool area, free from moisture has a shelf-life of 12 months.

TECHNICAL DATA - Premix

Compressive Strength (ASTM C109 Modified)	31.0-34.5 MPa (4,500 - 5,000 psi)
Flexural Strength (ASTM C348)	8.3 MPa (1,200 psi)
Bond Strength	1.4 MPa (200 psi)
Dry Density	1.7 g/cm <sup>3</sup> (105 lbs/ft <sup>3</sup> )
Fire Hazard Classification (ASTM E 286)	0 - flame spread, 0 - smoke, 0 - fuel contributed
Setting Time (6 mm (1/4 in) layer)	walkable in 4 - 6 hours

Acoustical Performance: Care must be taken in the installation of all components of structure to assure the designed acoustical result, as *Sure-Flo PLUS* is only one component of the system.

INSTALLATION

Current Product Data Sheet & Guide Specification must be followed. Consult Gemite Technical Service before starting a project, to ensure that the correct surface preparation and application procedures are followed, especially when applied to previously treated substrates.

Gemite Products Inc.  
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3 & 9

103550 Concrete Topping  
09742 Self-Levelling Compound

## Surface Preparation

The surface must be clean, firm, free of dust & dirt. All contaminants such as paint, wax, polish, grease, oil, curing compounds, asphalt, etc. must be thoroughly removed. Any degreasers or acids used in cleaning the floor must be flushed away. All openings must be sealed. In applications over wood substrate an Expanded Metal Lath must be used.

## Primer

All surfaces must be primed, using *Primer # 410*. Mix *Primer # 410* with water at 1:1 ratio and apply a thin layer with a push broom. Do not use paint rollers, mops or spray equipment. Do not leave any bare spots. Brush off puddles and excess primer. Allow to dry to a clear, thin film, for approximately 3 hours. Highly absorbent concrete may require two applications of *Primer # 410* to avoid the formation of bubbles and pinholes in *Sure-Flo Plus*. In such cases, make an initial application of *Primer # 410* diluted with 2 parts of water. Let dry thoroughly (3 hours) and install the second coat of *Primer # 410* mixed with water 1:1. Let the *Primer # 410* dry for a minimum of 3 hours. Apply *Sure-Flo PLUS* within 24 hours after priming. In case when the second coat of *Sure-Flo Plus* is applied, double priming using diluted primer #410 may be required, to eliminate formation of air bubbles at the surface. In case there are "soft" areas in the first coat of *Sure-Flo Plus*, these need to be sanded down prior to double priming. The "soft" areas could result in formation of air bubbles in the second coat of *Sure-Flo Plus*.

## Test Installation

Due to the variety of surfaces and different site conditions it is recommended that a test installation using one bag of *Sure-Flo PLUS* be done first, allowing for an overnight cure. It is advisable to identify and correct any potential problems prior to a full scale installation.

## Mix Design

<i>Sure-Flo PLUS Premix</i>	22.7kg (50 lb)
Water	3.6-3.8 L (0.95 - 1.05 USG)

For large areas with a thickness over 19 mm (3/4 in) add 7 kg (15.4 lbs) of washed mortar sand per each bag.

## Mixing

Use a heavy duty drill (min. 400-600 RPM) and mixing paddle, or paddle mortar mixer with rubber sweep. Place most of the specified water into mixer and add *Sure-Flo PLUS Premix* slowly while continuously mixing. Mix for a minimum of 5 minutes. Initially the mix may appear quite thick, but after a vigorous mixing it will become a thick, paint-like, viscous liquid.

The exact amount of water for the best result depends on the porosity of the substrate, relative humidity and temperature. At high humidity and low temperatures, the amount of mixing water may have to be decreased. The reverse conditions may result in water demand increase. Withhold part of the water, while mixing the first batch and adjust the water as required in the particular situation. A sign of "white bleed" water or sedimentation is an indication of high water content.

## Application

*Sure-Flo PLUS* can be feather-edged on concrete substrates, but it will not self-level (flow) unless at least a 3 mm (1/8") thick layer is applied.

Pour the *Sure-Flo PLUS* where needed. Use a squeegee with adjustable height pins to spread the material when applying layers of 6 mm (1/4 in) or thicker. For thickness less than 6 mm (1/4 in), use regular squeegee. When joining the batches, use squeegee to blend the batches. It may be necessary to use a trowel on the joint between the already setting material (if more than 15 - 20 minutes expired) and the new batch. The best results are achieved when continuous application by pumping is used. Any positive displacement pump is suitable for pumping *Sure-Flo PLUS*.

## Curing

Make sure that the area is well ventilated and heated, if necessary, to remove the excess water during curing. Avoid relative humidity over 70% if possible. Avoid fast surface drying. In 4 to 6 hours at 20°C (68°F) the *Sure-Flo PLUS* can be walked on. The drying time may have to be extended when low temperature and/or high humidity conditions exist. Thin layers, up to 6 mm (1/4 in), are ready to receive floor coverings in 24 hours.

## MAINTENANCE

None required.

## WARRANTY

A limited twelve (12) month Material Replacement Warranty is available. For complete details contact Gemite's Head Office.

## TECHNICAL SERVICE

For advice on suitability of *Sure-Flo PLUS* for a specific application, specification assistance and application instructions, contact Technical Service: USA at 888-443-6483 in Canada at 905-672-2020.

## Short Specification

The self-levelling underlayment will be *Sure-Flo PLUS*, manufactured by Gemite Products Inc., [USA 888-443-6483] [Canada 905-672-2020]. It will meet all the Technical Data specified in the current *Sure-Flo PLUS* Product Data Sheet.