

# S-7000 Underlayment™

TECHNICAL DATA SHEET

## DESCRIPTION

Super-Krete® Underlayment™ is a dry, pre-blended, ready-mixed cementitious product which is mixed with water only and is used as a leveling, re-grading and sub-floor material over concrete and wood substrates. Underlayment provides a co-adhesive bond with the substrate and is fire and water resistant. Underlayment can be installed in any thickness ranging from 0" to 6". Underlayment can achieve strengths of 8,500 psi yet remain flexible and resilient. Underlayment is typically used for underlayment over existing concrete surfaces and above-grade wood decks, and is also used for structural repairs of bridges, parking structures and many other cementitious substrates. Underlayment is an integral part of a proven system (refer to Super-Krete Spec. No. S-3000) for wood decks. Super-Krete's Plywood Roof and Deck System was designed as a light-weight waterproofing system that provides a durable coating for plywood. This system has passed I.C.B.O. testing for a Class "A" one-hour fire rating.

## USES

Interior / Exterior Applications	Anti-skid Textures
Bridges	Filling Spalls & Low Spots
Highways	Re-grading / Re-sloping
Parking Structures	On-grade / Vertical / Overhead Repairs
Sidewalks	Balconies
Concrete / Wood Deck Underlayment	Structural Concrete Repairs

## ADVANTAGES

Flexible & Versatile	Water Resistant / Non-Reemulsifiable
Eliminates the Need for Concrete Removal	Resists Freeze / Thaw Conditions
Ready-Mixed Formula –Just Add Water!	Environmentally Friendly
Superior Bonding Capabilities	OSHA Compliant
Requires No Bonding Agents or Primers	Non-skid Capabilities
Weather Resistant / Flexible	Waterproofs & Seals
Can Be Applied in Thickness from 1/8" to 6"	



## CSI RELATED SECTIONS

07 16 13 - Polymer Modified Cement Waterproofing	09 61 13 - Slip Resistant Flooring
03 53 00 - Concrete Topping	09 97 26 - Cementitious Coatings
03 54 00 - Cast Underlayment	32 01 19.62 - Patching of Rigid Paving
06 16 26 - Underlayment	32 01 26.74 - Concrete Overlay
07 11 16 - Cementitious Dampproofing	

## SURFACE PREPARATION

Surfaces that are to be repaired or coated must be structurally sound. Surface damage such as surface deterioration, cracks and spalls can typically be repaired. However, structural integrity is critical to the overall success of any coating or overlay. Remove any loose, soft or contaminated materials from the area that is to be repaired or resurfaced. Any existing coatings, sealers, curing agents, bond-breakers, etc. must be removed from the surface providing direct contact with the original substrate to assure adhesion. Typical preparation methods may include scraping, water blasting, sand blasting, shot blasting, cleaning and degreasing. **Note: All expansion joints must be honored.** Clean, repair and honor all control and expansion joints during entire application process, or mark them for reestablishing them after application. Clean and treat all cracks and spalls in accordance with manufacturer's specifications.

**Super-Krete International, Inc. recommends that all Super-Krete applications over concrete first be treated with Pene-Krete®. Always refer to Super-Krete Specification S-1 for surface testing, cleaning, preparation and porosity requirements prior to applying Underlayment to any concrete surface. Refer to Super-Krete Spec. No. S-3000 for detailed installation guidelines and requirements.**



## MIXING

The amount of water required will depend upon the desired consistency and the repair or re-surface requirements. Determine in advance whether the required mix will be for thin-set repairs, dry packing or for deep fills.

**Manual – For Mixing Small Quantities:** Add 4 quarts of clean water to a container such as a 5 gallon pail and add 1 (50 lb.) bag of Underlayment to the water while agitating with a hand drill and paddle mixer attachment. Add additional water while mixing if needed until the desired consistency is achieved. Allow material to sit for approximately 5 minutes to allow water to saturate the fine aggregate. Add additional water as needed or when a flowable consistency is desired. For vertical or overhead repairs, a dry slump consistency is recommended (add less water).

**Mechanical – For Mixing Large Quantities:** Add desired amount of Underlayment units to the plaster mixer and add clean water until the desired consistency is achieved. Allow material to sit for approximately 5 minutes to allow water to saturate the fine aggregate. Add additional water as needed.

**Note:** For a dryer mix, add less water or more Underlayment. For a wetter mix, add more water or less Underlayment. The proper consistency is based upon the applicator's choice of application. For hand trowel applications or for applying to vertical and overhead surfaces, the applicator may choose to have a dryer or less fluid mix. For screeding, a more fluid mix is recommended. The appropriate amount of water is necessary for Underlayment to maintain the desired thickness. Do not over-dilute Underlayment with water. Over-dilution is visible when sand fines begin to separate from the mix, causing them to settle to the bottom.  $\frac{3}{8}$ " or larger gravel can be used as an extending material and to increase the strength of the mix.

## APPLICATION

Underlayment can be applied by squeegee, trowel, or gauge rake and as a self-leveling product. In every application, Super-Krete always recommends a light spray of water be applied to all concrete substrates prior to application of Underlayment. The spraying of water opens the pores of the concrete and allows the Underlayment to create a co-adhesive bond. Should Underlayment become unworkable simply spray a mist of water over the area and it will become workable.

**Repairs / Patching:** Any structural repairs, crack treatments, patches and deep fills should be completed prior to resurfacing or squeegee applications.

**Build-Up Areas / Deep Fill Repairs:** Underlayment can be extended using up to 25 lbs. of  $\frac{3}{8}$ " pea gravel rock per 50lb. bag.

Apply the mixture to low area and trowel, squeegee or screed mixture with a straight edge tool for desired surface finish.

**Squeegee Coats:** A squeegee mix should be used when resurfacing in thin layers. A squeegee coat can be applied as thin as  $\frac{1}{32}$ " using a Super-Krete Squeegee™. Mix Underlayment thoroughly to desired consistency. Dampen surface to be coated with clean water. Evenly distribute material by pouring it onto the surface, spreading the material from one side of working area across to the other in a 6"-8" wide pour. Spread immediately using a squeegee to spread the material from side to side while working towards the nearest joint or end of work area. For even application, ensure the squeegee is held at 45° to the direction of travel. If Underlayment begins to dry, leave a residue or curdle on surface, spray the area with a light mist of water and squeegee the material until surface is uniform. Two or more applications are typically required to achieve an anti-skid finish.

**Broom Finishing:** To achieve a broom finish, apply the first coat with squeegee and broom finish the last application by pulling a stiff-bristled broom that is turned upside-down so that bristles face away from direction of travel and pull the material in the direction of desired finish. Dragging the broom in an upside-down position allows broom to drag across the surface evenly without pulling the material and clumping.

**Trowel Finish:** After 1<sup>st</sup> coat, following directions above, material may be trowelled to desired finish or texture. A trowel finish can be achieved by using a trowel instead of a broom to finish the second coat.

**Structural repairs:** Structural repairs can be made by pouring a flowable mixture into forms or by hand-trowelling a dry slump mix.

**Leveling:** When Underlayment is used as a self leveling surface the mixed material is poured onto the surface in a flowable consistency, gauge raked and floated for smoothness. For re-grading a surface, mix Underlayment with water to a semi-dry slump, and screed the material over the surface using a straight edge and finish with a trowel. Super-Krete always recommends a light spray of water be applied to all concrete substrates prior to application of Underlayment. The spraying of water opens the pores of the concrete and allows the Underlayment to create a co-adhesive bond.



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## Coverage Rates:

35 sf / bag over metal lath

\* Coverage rates will vary, this is an approximation only. Actual coverage will vary due to substrate conditions and surface porosity.

<b>Cure Time</b>	24 hours
<b>Shelf Life</b>	5 Years when properly stored.
<b>Storage</b>	Store in a cool, dry place. Keep from moisture.
<b>Compressive Strength</b>	8500 psi at 7 days

## Tools Required

5 gallon pail or	Cut 55 gallon drum
Pump sprayer	Paddle mixer attachment
Drill	Trowel(s)
S-18000 Squeegee	Straight edge / Smoother
Diamond crack chaser & grinder	Plaster mixer

<b>Packaging</b>	50 lb. bags / 50 per pallet
<b>Appearance</b>	Gray, powdered form
<b>Odor</b>	None
<b>Specific Gravity</b>	3.15
<b>Percent Volatiles by volume</b>	0

## CAUTION

Keep away from children. Do not take internally. Always use safety gloves, appropriate eye protection, and appropriate OSHA/NIOSH approved respirator in areas with poor ventilation and when exposed to spray mist both indoors and outdoors. If ingested, seek medical attention immediately.

## LIMITATIONS

Super-Krete products are to be applied only when surface temperatures are above 55° F and rising and not to exceed 100° F. Super-Krete products are not to be applied when precipitation is expected within 24 hours following completion of application. Do not allow materials to freeze. Each Super-Krete product acts as an inherent part of a proven system. Super-Krete products are professional, contractor grade products. Training in the use of these products is available. Consult Super-Krete for information and assistance locating approved contractors in your area or for training class dates.

**NOTE: Super-Krete International, Inc. believes this information to be true to the best of our knowledge and products are of the highest quality and uniform within manufacturing tolerances. Since no control is exercised over product use, no warranty, expressed or implied is made as to the effect of such use and no liability is assumed directly or indirectly, from their use. Buyers and users are encouraged to conduct their own test prior to application.**

## WARRANTY

Super-Krete products are warranted only when applied by Super-Krete Certified Applicators in accordance with Super-Krete specifications. No warranty applies to products applied over concrete substrates with moisture vapor transmissions exceeding (3 lbs.)/(1,000 sf) of surface area. Super-Krete provides a 5 year warranty when products are applied by Certified applicators. To apply for warranty, refer to the Super-Krete Limited Warranty and form filing at [www.super-krete.com](http://www.super-krete.com).

