

FlexKrete

Technologies

A div. of Protective Products, Inc.

"You won't believe it until you see it!"

FlexSealer 1000

PRODUCT DESCRIPTION:

FlexSealer 1000 is an advanced, aqueous copolymer.

RECOMMENDED USAGE:

FLEXSEALER 1000 is used as a final seal coat on broadcast systems, over other coatings, such as epoxies, urethanes, etc., to enhance the color and provide gloss for stone, wood and masonry products, and as a clear sealer for stamped concrete, epoxy stone and other decorative systems. FlexSealer 1000 may be used on masonry products, wood, steel, fiberglass, plastic and *FLEXKRETE*..

KEY FEATURES:

- Single Component
- Water Clear
- High Gloss
- Quick Drying
- High Impact Resistance
- Chemically Resistant*
- Excellent Adhesion
- Excellent Abrasion Resistance
- Excellent Flexibility
- Stable in Sunlight & Florescent

*Not compatible with strong acids or bases.

APPLICATION:

Mixing: Mix or shake well before using.

Temperatures: Should not be applied below 45°F; surface cannot be wet, but can be damp.

Equipment: Use good quality brush or roller; use single direction strokes with bristle brush, and crosshatch method with short nap roller. Can be sprayed with conventional or airless sprayer.

Surface Prep: Substrate should be free of dirt, dust, contaminants, oil or concrete additives. Existing coatings may either be removed or abraded, to provide an anchor profile for proper adhesion.

Thinning: None needed. Water clean-up.

PHYSICAL DATA:

Appearance	Semi-clear
Coverage (Depending on substrate)	75-100 sf/gal.
Solids Content—38-40%	DIN 53189
PH value—7.5-8.5	DIN ISO 976
Viscosity (mPa s)—50-200 (Brookfield RVT, Spindle 1.20rpm)	ISO 1652
Density (g/cm ³)—approx. 1.05	DIN 51757
Pendulum Hardness-Konig—approx. 95	DIN 53157
Elongation at Break—approx. 176%	DIN 53455
Flash Point	None
Chemical Stability	Stable
Cleanup	Water
Shelf Life	1 Year

ORDERING INFORMATION:

Shipping Weight: Wt. Per Gallon @ 77°F.	8.8 lbs.
Packaging: 5 Gallon Pails	44lbs.

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FlexPrime

PRODUCT DESCRIPTION:

FlexPrime is a two component, 100% solids primer with excellent wet out properties for deep penetration. FlexPrime may be top coated or stand alone as a rust corrosion inhibitor.

FlexPrime component A is a brown colored liquid that has been chemically modified to be readily emulsifiable in water without the addition of surface active agents.

FlexPrime component B is a clear glyceryl tri-ester that will crosslink with the A component and enhance the chemical bond to FlexKrete.

FlexPrime is typically mixed as a 50/50 ratio, however, if the substrate has a high moisture content the A component can be increased to a 60% A, /40% B mix.

SURFACE PREPARATION FOR CONCRETE:

Remove dust, dirt, oil, laitance, curing compounds, concrete sealer, etc, from surface by power wash, acid etch, grit blast or profiling equipment. The prepared surface should be clean, dry, hard/dense, and should be slightly roughened. Surface may be damp, but not saturated or ponded. On re-bar or steel surfaces, any loose rust should be removed by blast or mechanical means, then a full seal coat should be applied.

APPLICATION:

Mixing Instructions: Combine equal parts of Part A with Part B, using a power mixer, and mix for approximately two minutes. A "buttery" looking mixture will result. Do not add new material to previously mixed parts, and do not mix more than can be used within the pot life.

Brush, roll or spray material onto the surface, working it into the substrate, leaving a smooth, thin coating, without ridges or puddles.

ORDERING INFORMATION:

Shipping Weight:
Wt. Per Gallon @ 77°F. 8.8 lbs.

Packaging:
2 quart kits
2 gallon kits

PHYSICAL DATA:

Solids by volume	100%
Recommended Spread Rate (Wet/Dry mil-3-8 mils)	200-400 sq ft./ gal.
Mix Ratio by Volume	1:1 ratio
Flash Point	>200°F (93°C)
Weight Per Gallon (mixed)	8.8 lbs
MVT (ASTM E 96-80, perms)	8.8 lbs (4 kg)
Shelf Life Unopened Containers @ 77°F (25°C)	
Pot Life	15-20 min@ 77°F., 60% RH (Pot life will be reduced if kept in mixing container).
NOTE: If the maximum coating time is exceeded, brush blast or abrade surface before recoating.	
Tack Free (to touch)	4-6 hours @ 77°F., 60% RH
Topcoat	At heavy tack
Cleanup	Acetone
Shelf Life	1 Year

GENERAL SAFETY & HEALTH DATA:

Warning: Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with the liquid or spray mist.

Eye Protection: Safety glasses, goggles, or a face shield are recommended.

Skin Protection: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

Respiratory Protection: Use a respirator approved for isocyanates and organic vapors. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

Ingestion: Do not take internally. It is believed that ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of the mouth and stomach tissue.

Polymeric products manufactured from these chemicals may present a fire hazard if improperly used. Each user of such products should determine whether there is potential hazard in each specific application and take the necessary precautions.

Limitations:

- This product is for professional use only.
- Minimum material/container temperature for application is 70°F. (21°C).
- Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected. CO² created pressure can develop. Do not attempt to use

- contaminated material.
- Un-dried air exposed to liquid components will reduce physical properties of the cured coating.

Note: The material supplied is two components (Component A/Component B) used to formulate this product. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

WARRANTY:

FlexKrete Technologies has no role in the manufacturer of the finished polymer other than to supply its two components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of plural component material.

FlexKrete Technologies, a Texas corporation, warrants only that the two components of this product shall conform to the technical specifications published in the product literature.

FLEXKRETE TECHNOLOGIES MAKES NO WARRANTY OF THE MERCHANTABILITY OF THE PRODUCT OR OF FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE.

FlexKrete Technologies makes no warranty as to the quality of any product modified, supplemented, tinted or altered in any way after it leaves the FlexKrete facilities. FlexKrete Technologies does not warrant that this product is suitable for use as a liner for potable water containers. Use of this product in a potable water container could be hazardous to health if it is improperly processed or applied.

The liability of FlexKrete Technologies for any nonconformity of the product to its technical specifications shall be limited to replacement of the product. The sole exclusive remedy of buyer, which is to have FlexKrete Technologies replace any nonconforming product at no cost to buyer, is conditioned upon buyer notifying FlexKrete Technologies or its distributor in writing of such defect within thirty days of the discovery of such defect.

FlexKrete Technologies shall not be liable for any direct, incidental or consequential changes resulting from any breach of warranty.

The data presented herein is not intended for non-professional applicators or those persons who do not purchase or utilize this product in the normal course of their business.

The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

The aforementioned data on this product is to be used as a guide and is subject to change without notice.

The information herein is believed to be reliable, but unknown risks may be present. No warranties, expressed or implied, including patent warranties or warranties of merchantability or fitness of use, are made by FlexKrete Technologies with respect to products or information set forth herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent.

Accordingly, the buyer assumes all risks whatsoever as to the use of these materials and buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the materials. Failure to adhere to any recommended procedures shall relieve FlexKrete Technologies of all liability with respect to the materials and the use thereof.

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FlexKrete 102 Technical Bulletin

GENERIC TYPE:

Advanced, thermoset vinyl polymer.

RECOMMENDED USAGE:

- Repair pot holes and broken concrete.
- Repair spalls in concrete.
- Feather edge, or use full depth.
- Rebuild broken curbs and platforms.
- Restore integrity of distressed concrete.
- Bridge deck repairs and slabs.
- Parking lots.
- Parking decks.
- Floors, docks & ramps.
- Non-skid, coating for floors, steps & walkways.
- Driveway and sidewalk renovation.
- Rebuild stairways.
- Control & expansion joints.
- Equipment bases.
- Anchor bolts and posts.
- Level concrete.

CHEMICAL RESISTANCE GUIDE:

(Use FlexKrete 102CR)

EXPOSURE	IMMERSION	SPLASH & SPILL
ACIDS	GOOD	EXCELLENT
ALKALIES	GOOD	EXCELLENT
PETROLEUM	GOOD	GOOD
SALTWATER	EXCELLENT	EXCELLENT
WATER	EXCELLENT	EXCELLENT

NOTE: For specific harsh chemical environments, contact FlexKrete Technologies or your sales rep.

ORDERING INFORMATION:

Shipping Weight:

Wt. Per Gallon @ 77° F. 9.2 lbs.

PACKAGING:

Available in 5 gallon units.

PHYSICAL DATA:

Solids by wt: approx. (@77° F.)	99%
Solids by vol: approx. (@77° F.)	98%
Specific Gravity @ 77° F.	1.08
Viscosity @ 77° F.	180-250 cps
Flash Point: (ASTM-D-93, Open Cup)	141°F.
Pot Life with 80% aggregate:	
@77°F., approx.	20 min.
@100°F., approx.	12 min.
Pot Life without aggregate:	
@77°F., approx.	13 min.
@100°F., approx.	7 min.
Linear Shrinkage (unfilled)	1.1%
Tensile Modulus (ASTM D 790)	182,000 psi
Tensile Strength (ASTM D 638)	3,530 lb/in ²
Flexural Strength (ASTM D 790)	7,340 lb/in ²
Flexural Modulus (ASTM D 790)	390,000 psi
Elongation % (ASTM D 638)	30%
Water Absorption (ASTM D 570)	0.64%
Compressive Strength	>10,000 psi
(Depends on type & amount of aggregate & time).	
Hardness-Shore D (ASTM D 2240)	79
Resilience (Tex-618-J)	99.3%
Thermal Compatibility (ASTM-C884)	No Cracking
Wet Strength (Tex-614-J)	380 psi
Compressive Stress (Tex-618-J)	5504
Shelf Life @ 70°F, unopened:	6 mos.
VOC:	0
Temperature Limits:	Continuous 175° F.
Cures @ -40° F	Intermittent 220° F.

COVERAGE: 1 Gal. FlexKrete™ + 3.5 Gal. Sand =

Approx. 120 sf @ 1/16" Average Thickness

60 sf @ 1/8" Average Thickness

30 sf @ 1/4" Average Thickness

15 sf @ 1/2" Average Thickness

8 sf @ 1" Average Thickness

For broadcasts, approx. 50-100 sf per gallon, depending on porosity & aggregate used & thickness.

MATERIALS & EQUIPMENT:

1. *FlexKrete* 102 in 5 gallon container.
2. *FlexKrete* catalyst and measuring container.
3. Bagged industrial sand. (20-50 mesh (coarse), or for fine feather edging, use 40-60 mesh (fine)).
4. One-gallon measuring containers with 1 qt. Increments.
5. 5-gallon (or larger) mixing containers.
6. Brushes and/or rollers to apply the primer coat.
7. Trowels. (MUST BE TOTALLY CLEAN ON BOTTOM SURFACE.)
8. Concrete edgers and tools for installing dummy joints.
9. Heavy-duty drill with 4-6" wide paddle or grout mixer.
10. Electrical generator or available electricity.
11. Acetone for tool clean-up.
12. Container with lid, in which trowels and tools will fit flat on bottom, bathed in 1-2" of acetone, immediately after using.
13. Pumice stone for feather edging and smoothing.
14. Duct tape.
15. Rags and hand cleaner.

SURFACE PREPARATION:

All surfaces should be clean, free of oil, dirt, debris, grease, scale, coatings, contamination and moisture. Any existing asphalt materials should be removed prior to application.

NEW CONCRETE should be aged for 28 days, or use *FlexPrime* first, and should be clean and free of form release agents, curing agents, waterproofing agents and any other coating. For best results, a clean, rough concrete surface should be exposed.

A full-depth repair appearance may be produced by using duct tape to symmetrically tape off the area to be repaired.

MIXING:

Determine how much primer is needed for the defined work, then pour the appropriate amount of *FlexKrete* into the measuring container. Add the indicated amount of catalyst, (1.2oz. for 1 gal., 1/2oz. for 1/2 gal., 1/4 oz. for 1 qt., etc.— then mix with the mixer for 30-60 seconds. Apply liberally to the areas with brush and/or roller, making certain that all facets are coated and voids are covered. The slurry may be applied immediately after priming, or time may be allowed to pass, as long as the primed area remains clean—finish on same day.

SLURRY:

A *FlexKrete*/sand mix ratio should be about 3 1/2—4 parts sand for the best trowelability. **CATALYZE BEFORE ADDING SAND.** Use 20-50 mesh (coarse) industrial sand, or a mixture of 20-40 and 40-60 mesh, (fine) for excellent results. Mix only the amount of material that can be poured and troweled within the setup time. (approx. 15-20 minutes)

DEEP HOLES:

For repairs 2-4" deep or more, small angular gravel mixed with *FlexKrete* may be used to fill within 1/2-1" of surface. Then, use the same *FlexKrete*/sand mix to finish, feather-edging to the duct tape. **DO NOT OVERTROWEL.** When the material begins to pull, finish or pat smooth with the trowel. Wipe trowel with acetone wet rag for last minute smooth finishes. Install dummy joints, always retain expansion joints, pull duct tape and allow to cure. Normally, 45-90 minutes are needed for return to full traffic.

With *FlexTemp*, it can be 15 minutes.

CLEANUP:

Immediately drop tools and brushes in acetone for easy cleaning.

These instructions are issued as an aid in determining correct surface preparation, mixing instructions and application. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials. **CAUTION:** Contains flammable materials. Keep away from sparks and open flames during application. In confined areas fresh air supply should be utilized, and all hypersensitive persons should wear gloves or use protective cream. All electrical equipment and installations should be made and grounded in accordance with the National Electrical Code.

To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied. We guarantee our products to conform to strict quality control. We assume no responsibility for coverage, performance or injuries resulting from their use. Liability, if any, is limited to replacement of products. Prices are subject to change without prior notice. **NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY THE SELLER, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

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POLYUREA SEAL 100

GENERIC TYPE:

Polyurea Seal 100 is a 100% solids, high elongation elastomer, VOC free, pure polyurea polymeric sealant, used in horizontal saw or preformed joints. This product is used on concrete or asphalt, saw cut and pre-formed joints subject to high volume traffic.

FEATURES:

- 100% solids
- Zero VOC's
- Highly elastomeric
- Meets USDA requirements for incidental food contact.

RECOMMENDED USAGE:

- Concrete joint sealer
- Asphalt/concrete transition joints
- Threshold repairs
- Fractured slab sealant
- Wire guidance sealant
- Electric door thresholds
- Warehouse floor repair
- Crack Filler

INDUSTRIAL APPLICATIONS:

- Parking Structures
- Chemical Plants
- Waste/Water Treatment
- New Construction
- Shipping and Transportation
- Poultry & Meat Plants
- Refrigerated Warehouses
- Food Processing
- Cold Storage

COLORS:

Polyurea Seal is an aromatic polyurea, and, over time, color changes will occur. For long-term color stability, consult your local FlexKrete distributor.

PHYSICAL DATA:

Solids by Volume	100%
Solids by Weight	100%
Volatile Organic Compounds	0 lbs/gal.
Theoretical Coverage DFT	100 sq. ft @ 16 mils
Weight Per Gallon	8.55 lbs.
Mix Ratio	1A:1B
Viscosity (cps) @ 77° F	A: 530 approx. B: 450 approx.
Shelf Life @ 60-90°F	6 Mos.
Tensile Strength ASTM D 412	1352 psi ± 50
Elongation	300% ± 5%
Hardness (Shore D)@0s	42% ± 5%
Hardness (Shore A)@10s	80 ± 5%
100% Modulus	1032 psi (2.0 mpa)
Tear Resistance	306.7 PLI (67KN/m)
Service Temperature	-40°F-+150°F (-40°C-65°C)

CURING SCHEDULE:

Pot Life@75°F	8 Minutes
Tack Free	Up to 12 hours
Initial Cure	30-45 Minutes
Final Cure	3-4 Days

*Elevated temps will speed up the curing process.

INSTALLATION:

All joints to receive PolyureaSeal 100 must be free of contamination. Some applications may require use of a primer prior to application of the sealant. Use plural component hand gun, or standard 1:1 ratio, plural component automatic equipment developing a minimum of 500 psi dynamic pressure is sufficient. These include SPI-Gusmer FF 18-6, SPI-Gusmer FF18-18 and SPI-Gusmer 25-25 HP with a static mix gun.

Due to very short pot life, all materials must be used immediately after mixing.

MAINTENANCE:

If Polyurea Seal 100 is damaged and the surface has not been contaminated, it can be repaired by cutting out the damaged part and reapplying Polyurea Seal 100 to the cleaned section.

LIMITATIONS:

- Polyurea Seal 100 is for professional application only.
- Polyurea Seal 100 must be stored at temperatures between 60° 70°F (21° C)
- Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected, carbon dioxide (CO²) created pressure can develop. Do not attempt to use contaminated material.
- Read and observe all precautions, instructions and limitations that are included with all containers of Krete Filler.

Note: The material supplied is two components (Component A/Component B) used to formulate Polyurea Seal 100. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components. FlexKrete Technologies has no role in the manufacturer of the finished polymer other than to supply its two components.

It's vital that the person applying this product understands the product and is full trained and certified in the use of plural component equipment.

SAFETY & HEALTH DATA:

Material Safety Data Sheets are available on this material. Any individual who may come in contact with these products should read and understand the M.S.D.S.

WARNING: Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact of the liquid or spray mist.

CLEAN UP: Use DPM, NMP, Polyclean.

EYE PROTECTION: Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION: Use a respirator approved for isocyanates and organic vapors. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

INGESTION: Do not take internally. It is believed ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of mouth and stomach tissue.

RESPIRATORY PROTECTION: Use of a respirator approved for isocyanates and organic vapors.

FlexKrete Technologies warrants only that the two components of this product shall conform to the technical specifications published in the product literature.

The quality and fitness of the product is dependent upon the proper mixture and application of the components by the applicator. There are no warranties that extend beyond the description on the face of this instrument.

FlexKrete Technologies makes no warranty of the merchantability of the product or of fitness of the product for any particular purpose.

FlexKrete Technologies makes no warranty as to the quality of any product modified, supplemented, tinted, or altered in any way after it leaves the manufacturing plant. FlexKrete Technologies does not warrant that this product is suitable for use as a liner for potable water containers. Use of this product in a potable water container could be hazardous to health if it is improperly processed or applied.

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The information herein is believed to be reliable, but unknown risks may be present. No warranties, expressed or implied, including patent warranties or warranties of merchantability or fitness of use, are made by FlexKrete Technologies with respect to products or information set forth herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without license from the owner of the patent.



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Flex-Temp Additive

FLEX-TEMP ADDITIVE IS AN EXTREMELY POTENT CURE PROMOTER, DESIGNED FOR COLD TEMPERATURE OR FAST CURE APPLICATIONS WITH FLEXKRETE.

AT 32°F., FLEXKRETE WILL SET IN Approx. 1 HOUR.

IN WARMER CONDITIONS, A 5 MINUTE SET TIME MAY BE ATTAINED.

Ambient temperature, as well as material & substrate temperature, determine the time at which FlexKrete reacts for the final cure.

GENERAL MIXING INSTRUCTIONS:

1. Add the standard catalyst and power mix for 30 seconds, then,
2. MIX IN FLEX-TEMP ADDITIVE—
AT THE RATE OF **.5 — .1%** of the FLEXKRETE, and mix for, at least, another 30 seconds.
ADD THE TWO CATALYSTS SEPARATELY—DO NOT MIX THE TWO TOGETHER!
3. Add aggregate immediately, mix for 60 seconds, and place material.
(Always use large mud paddle, to get a thorough mix)

EXAMPLE:

IF YOU ARE MIXING:

1 gallon of FlexKrete (128 OZ.)—.75% X 128 OZ.=.96 oz.— Use 1 oz.

1/2 gallon of FlexKrete (64 oz.)—.75% x 64 oz. = .48 oz.— Use 1/2 oz

1 quart of FlexKrete (32 oz.) — 75% x 32 oz = .24 oz — Use 1/4 oz.

AT 32°F., FLEXKRETE WILL SET IN ABOUT AN HOUR.

AT 60°F., FLEXKRETE WILL SET IN ABOUT 15 MINUTES.

(THESE ARE AVERAGES AND WILL VARY WITH OVERALL CONDITIONS).

INCREASE AMOUNT OF FLEXTEMP FOR FASTER SET TIME AND DECREASE FOR SLOWER SET TIME.

CAUTION SHOULD BE TAKEN WHEN USING FLEX-TEMP, SO AS NOT TO ATTAIN A CURE SOONER THAN DESIRED. Measure carefully & mix properly.