

K A U F M A N

PRODUCT
INFORMATION

KAUFMAN
PRODUCTS
INC.

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SureGrout UW 8K

Description

SureGrout UW 8K is a special version of our famous SureGrout UW structural grouting compound designed for underwater placement that generates greater than 8,000 psi. compressive strength in just 7 days. SureGrout UW 8K requires only the addition of water to produce a pumpable underwater non-shrink grout which exhibits exceptional resistance to "washing-out" of the cement and fines, and that may be pumped or tremied in pile jacket installations.

SureGrout UW 8K is composed of special portland cements, washed and properly graded quartz aggregates plus other proprietary ingredients to allow the product to set underwater without excessive expansion or shrinkage. SureGrout UW 8K also includes an amine-based corrosion inhibiting agent to help prevent corrosion on in the rebar, threaded rod, or other metals embedded in the concrete.

Uses

Recommended for grouting to repair deteriorated underwater or tidal zone concrete structures without significant "wash-out" of the cement. Can also be used as patching or pointing cement for joints over 1/4' wide. Applications include bridge columns, concrete piling and dams. Particularly effective when used with metal or fiberglass jackets, around the pilings, to fill the annular space completely.

Features

Non-Raveling	Non-Metallic
Non-Rusting	Water & Oil Resistant
Non-Corrosive	Pumpable
Precision Blended	Economical
Non-Bleeding	Non-Staining

Includes Migratory Corrosion Inhibiting Agent

Packaging

50 lb. moisture resistant bags yielding .45 ft³
3,000 lb. super sacks yielding 1 yd³

Compliances

ASTM	C-109	CRD	C-227
	C-157		C-621
	C-827		C-61
	C-1107		

Shelf Life

One year in original,
unopened 50 lb. bags.

Storage Conditions

Store dry at 40-95°F

Color

Concrete Gray

Working Time at 72°F

30 minutes

Set Time (ASTM C-191)

Initial	3-4 hours
Final	5-6 hours

Compressive Strength Test Results (ASTM C-109)

1 Day	4,500 psi.
7 Days	8,000 psi.
28 Days	8,500 psi.

Height Change Moist Cured (ASTM C-1090)

28 Days	+0.03%
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Early Age Height Change (ASTM C-827)

Maximum 4% Allowed	+0.10%
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Slant Shear Bond Strength, (ASTM C-882)

28 Days	2,500 psi.
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Splitting Tensile Strength (ASTM C-496)

28 Days	500-600 psi.
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Length Change (ASTM C-157)

In Air at 28 Days	-0.14%
In Water at 28 Days	+0.04%

Freeze Thaw Resistance (ASTM C-666 Procedure A)

Relative Dynamic Modulus	96.8%
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Modulus of Elasticity (ASTM C-469)

	5,200,000 psi.
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Directions

Surface Preparation

Substrate must be clean and sound and free of foreign matter. All loose and unstable material must be removed. Concrete: Prepare surfaces by high-pressure water blasting or other means to achieve ICRI CSP 6-9. Steel: Prepare to NACE 5 WJ-4/SSPC-SP 12.

Mixing

Mix 3.5 quarts water with each 50 lb. bag. A mechanically powered grout mixer must be used. Ensure that the machine and number of workers are adequate to properly carry out the grouting in a continuous manner. Add the powder to the water, in the mixer, and mix for 4- 5 minutes, making sure that a smooth, even mix is obtained.

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Start by adding 90% of the mix water to the mixer, and then add the full amount of SureGrout UW 8K. Add the remaining mix water to attain the desired flow characteristics.

Do not ever add plasticizers, accelerators, retarders, or any other ingredients besides potable water unless advised by Kaufman Products in writing. Do not re-temper. Mix water must be potable. For best results, condition SureGrout UW 8K to 70°F.

SureGrout UW 8K may be extended with 3/8" pea gravel up to 50% by weight. Aggregate must be clean, non-reactive, well-graded, have low absorption and high density in compliance with ASTM C-1260, C-227, and C-289. When extended, the aggregate and mix water should be mixed together for 3-5 minutes, prior to adding SureGrout UW 8K. Up to an additional pint of water may be needed to adjust for proper flow characteristics. Please read the technical document called Susceptibility of Kaufman Products to Alkali-Silica Reaction (ASR) Overview.

Placing

SureGrout UW 8K may be tremied or pumped depending upon jobsite conditions. Use the mixed grout within 30 minutes.

Pumping Applications: Pump properly mixed SureGrout UW 8K through a port established at the bottom of the form. Fill the annular space to the desired level, allowing the water to be displaced. Make certain to check for leaks prior to pumping.

Tremie Applications: Make certain the hose is positioned all the way at the bottom of the form. Fill the space to the desired level, allowing water to be displaced out the top of the form. Depending upon jobsite conditions and placement depths, the tremie hose may need to be retracted as the form fills to maintain proper flow characteristics. Do not raise the hose higher than the level of SureGrout UW 8K. At the start of the operation, the grout flow should be restricted in order to avoid any water entrapment.

Do not place SureGrout UW 8K in water temperatures below 40°F, or when the temperature is expected to drop below that during the first 24 hours after placement. Water temperatures should not exceed 90°F during placement.

The minimum application thickness is 1" neat, and 2" when extended. Maximum application thickness is 8" when extended.

When placed in the annular space between a pile jacket and piling, SureGrout UW 8K may be placed neat and in lifts of up to twenty feet.

Curing

Normally not required when intermittently or totally submerged. However, when cast above water, all exposed surfaces should be thoroughly cured using a product that meets all aspects of ASTM C-309, Type 2, Class B, such as Thinfilm 450.

Hoses

Heavy duty grout hoses with an abrasion resistant lining should be used. Hoses should be equipped with internally expanded ends and quick disconnect fittings that eliminate pressure build-up. Hoses must have an internal diameter of a minimum of 1".

Notes

Rate of strength gain is significantly affected by both air and surface temperatures. Keep exposed grout protected from temperatures below 40°F until a minimum compressive strength of 4,000 psi. is achieved. *Read the complete Safety Data Sheet prior to use.* Only certified & experienced diving contractors should attempt placement of SureGrout UW.

Pumping

SureGrout UW 8K can be pumped successfully using a ChemGrout Model Number CG-030 or higher, or similar system.

Specifications

All grouting shall be done with SureGrout UW 8K as manufactured by Kaufman Products, Inc. Baltimore, Maryland. The grout shall be mixed according to directions furnished by the manufacturer and installed in accordance with their directions. Perform all grouting work in accordance with the recommendations of the American Concrete Institute for mixing and placement of concrete.

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

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