FLEXOLITH SUMMER GRADE

(Flexolith SG) Low Modulus Epoxy Binder for Polymer Overlays

Description

FLEXOLITH SG is a two component, 100% solids, low modulus, moisture insensitive, epoxy binder with properties which makes it suitable for use in applications where stress relief and resistance to mechanical and thermal movements are required. FLEXOLITH SG is designed for use as a binder for overlays or non-skid surfaces and is formulated for high temperature applications, or where a long working time is required.

Primary Applications

- Parking decks
- Bridges
- Factories
- Warehouses
- Loading docks

Technical Information

Material Properties @ 75°F (24° C) & 50% RH
Mixing ratio by volume (Part A:B).....1:1
Mixed viscosity, cps 1,700
Brookfield Viscometer, Model RVT
Gel time ASTM C 881 .....45 min
ASTM D 638
Tensile strength psi (MPa).....3,200 (22.1)
Tensile elongation .....30 to 60%
ASTM D695
Compressive strength psi (MPa)..... 5,800 (40)
Compressive modulus
psi (MPa ..... 120,000 ((827)

Water absorption ASTM D 570 24 hr % ..... <0.5
Compressive strength mortar ASTM C 109
(3 parts sand) psi (MPa)
4 hours 1,400 (9.7)
24 hours 7,040 (48.5)
Bond strength ASTM C 882 psi (MPa)
2 days.....2,100 (14.5)
7 days.....2,400 (16.5)
Chloride permeability ..... <100 coulombs
Hardness, Shore D ASTM D 2240.....65 min
Thermal compatibility ASTM C 884 ..... Passes
Effective shrinkage ASTM C 883 ..... Passes

Packaging

FLEXOLITH SG is available in 4 gal (15.1 L) cases, 10 gal (37.9 L) units and 100 gal (378.5 L) units.

Shelf Life

2 years in original, unopened container.

Specifications/Compliances

FLEXOLITH SG complies with requirements of ASTM C 881-99, Type III, Grade 1, Class A & B and AASHTO M 235, Type III, Grade 1.

Coverage

Please consult Euclid Chemical Technical Support for recommendations on your particular project.

Standard Broadcast Method: ft²gal (m²/L)	**1st Coat**	**2nd Coat**	**Seal Coat**
FLEXOLITH SG	40 - 50 (.98 -1.23)	30 - 40 (.74 - .98)	100 to 120 (2.45 to 2.94)
Aggregate lbs/ft²(kg/m²)	1.2 - 1.5 (5.86 - 7.32)	1.5 to 2.0 (7.32 - 9.76)	—---------

1/4" Bridge Deck Overlay (ft²/gal (m²/L)	**1st Coat**	**2nd Coat**	**3rd Coat** HD 3/8" (9.5 mm)
FLEXOLITH SG	40 - 45 (.98 - 1.10)	22 - 25 (.54 - 61)	22 - 25 (.54 - 61)
#8 Basalt lb/ft² (kg/m²)	1.0 - 1.5 (4.88 - 7.32)	1.5 to 2.0 (7.32 - 9.76)	1.5 to 2.0 (7.32 - 9.76)

Troweldown (mortar):
FLEXOLITH (neat, prime coat) 200 ft²/gal (4.19 m²/L)
Coverage @ 1/4" thickness (Flexolith SG mortar):
2 to 3 gals (7.5 L - 11.4 L) 20/40 mesh sand
and 1 gal (3.8 L) resin ft² (m²) 16 - 20 (1.49 - 1.86)
Seal Coat ft.² gal (m²/L) 150 - 250 (3.68 - 6.14)
Note: FLEXOLITH SG coverage rates are for estimating purposes only. Surface temperature, porosity, and texture will determine actual material requirements.

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An RPM Company

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Directions for Use

Surface Preparation: Concrete must be structurally sound, dry, free of grease, oils, coatings, dust, curing compounds and other contaminants. Remove oil, grease smear and asphalt residue with trisodium phosphate or a strong detergent. For heavy oil contamination use steam cleaning in conjunction with a strong emulsifying detergent. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting. If it is not possible to abrasive blast, acid etch with 15% hydrochloric acid solution. Follow by pressure washing with copious amounts of water to neutralize the surface. The pH of the surface should be checked according to ASTM D 4262 after washing. Rinse thoroughly with potable water. After cleaning, repair defective concrete, honeycombs, cavities, joint cracks, voids and other defects by routing to sound material and patching as needed. Smooth precast and formed concrete surfaces must be cleaned, roughened and made absorptive by abrasive blasting or shotblasting. Following surface preparation, the cleaned surface should pull concrete when tested with an Elcometer or similar pull tester (ASTM D 4541). Before application of the coating, use the "Visqueen test" (ASTM D 4263) to evaluate moisture level in concrete. **New Concrete:** Allow to cure for a minimum of 28 days. (Consult your local Euclid Chemical representative if earlier times are required). Prepare surface as recommended above. **Old Concrete:** For rapid curing patching, use a mortar of FLEXOLITH SG and clean aggregate. If portland cement patching materials are used, allow the patch to cure for 28 days before coating. (If earlier application is required, consult your local Euclid Chemical representative for appropriate patching material recommendation). After patching, a light brush blast is recommended prior to coating.

Mixing: Using a low speed drill motor and a "Jiffy" type mixer, mix the A & B FLEXOLITH SG components separately for approximately 1 minute.

Binder: Combine one part by volume of "A" with one part by volume of "B" and mix thoroughly. Scrape the bottom and sides of mixing container at least once. Mix just enough material that can be used within the working life. Do not aerate the mix.

Broadcast method: Apply mixed FLEXOLITH SG binder to the prepared surface using roller, notched squeegee or spray equipment. Eliminate any puddles with a quick light roller pass. Immediately broadcast clean, dry aggregate to full saturation until no wet spots appear. After the binder has cured, broom or vacuum excess aggregate. Repeat the procedure to build overlay thickness. For easier cleaning an optional seal coat of FLEXOLITH SG may be applied. A more textured, and higher skid resistant sealed surface is obtained if FLEXOLITH SG LV is used as the seal coat. **Troweldown applications:** FLEXOLITH SG mortar can be applied by trowel. Neat resin should be used as a prime coat prior to application of the mortar. Consult your local Euclid Chemical representative for application recommendations. **Aggregate for skid resistant overlay**: The recommended aggregate for heavy duty applications (high traffic bridge decks, parking deck turn lanes, etc.) is #8 or #9 Basalt, containing at least 10% aluminum oxide as supplied by Euclid Chemical. For other applications, or where specified, silica sand aggregate may be used.

Clean-Up

Clean tools and application equipment immediately after use with methyl ethyl ketone or acetone. Clean spills or drips while still wet with same solvent. Dried FLEXOLITH SG will require mechanical abrasion for removal.

Precautions/Limitations

- Store at 40°F to 90°F (4°C to 32°C). Protect from moisture and freezing.
- Do not aerate FLEXOLITH SG during mixing.
- If FLEXOLITH SG is to be exposed to chemicals contact your local Euclid Chemial representative for a suitable top coat recommendation.
- In all cases, consult the Material Safety Data Sheet before use.

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