



FLEXOLITH SUMMER GRADE

LOW MODULUS EPOXY COATING AND BROADCAST OVERLAY FOR WARMER TEMPERATURES

COATINGS - TRAFFIC DECK

FLEXOLITH SUMMER GRADE

MASTER FORMAT #: 09 96 09

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 higher temperature applications, or where a longer working time is required.

PRIMARY APPLICATIONS

- Parking decks
- Bridges
- Factories
- Warehouses
- Loading docks
- Nosing repair applications

FEATURES / BENEFITS

- Ample working time in warmer climates
- Easy to use
- Can be used as a mortar or broadcast system

TECHNICAL INFORMATION

Material Properties @ 24°C, 50% RH

Mixing Ratio , by volume (Part A:B).....	1:1
Mixed Viscosity , cp	
Brookfield Viscometer, Model RVT.....	1,700
Gel Time , ASTM C 881, Class B, min.....	45
Tensile Strength , ASTM D 638, MPa	
Final.....	22.1
Tensile Elongation , ASTM D 638, %.....	30 to 60
Compressive Strength , ASTM D 695, MPa	
Final.....	40
Compressive Strength , ASTM C 109, MPa	
(3 parts sand) mortar	
@ 4 hours.....	9.6
@ 24 hours.....	48.5
Compressive Modulus , MPa.....	827

Bond Strength, ASTM C 882, MPa

2 days.....	14.5
7 days.....	16.5

Chloride Permeability, ASTM C 1202, AASHTO T 77

Final..... <100 coulombs

Hardness Shore D, ASTM D 2240, min.....

65

Water Absorption, ASTM D 570, 24 hr. %.....

<0.5

Thermal Compatibility, ASTM C 884.....

passes

Effective Shrinkage, ASTM C 883.....

passes

COVERAGE

Aggregate Broadcast Coating	1st Coat	2nd Coat	Seal Coat
Flexolith SG (m ² /L)	0.98 to 1.2	0.74 to .98	2.5 to 2.9
Broadcast Aggregate (kg/m ²)	5.9 to 7.3	7.3 to 9.8	-----
1/4" Skid-Resistant Overlay	1st Coat	2nd Coat	3rd Coat HD 9.5 mm
Flexolith SG (m ² /L)	0.98 to 1.1	0.54 to .61	0.54 to .61
Flint/Basalt Aggregate (kg/m ²)	4.9 to 7.3	7.3 to 9.8	7.3 to 9.8
Trowel Down Coating	1st Coat	2nd Coat	Seal Coat
Flexolith SG (m ² /L)	4.9	-----	3.7 to 6.1
Flexolith SG mortar @ 6.4 mm*	-----	1.5 to 1.9 m ²	-----

*FLEXOLITH mortar consists of 3.8 L of mixed FLEXOLITH combined with 7.6 to 11.4 L 20/40 mesh, clean, dry silica sand

Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

PACKAGING

FLEXOLITH SG is available in 15L cases.

SHELF LIFE

2 years in original, unopened, properly stored package

SPECIFICATIONS/COMPLIANCES

ASTM C 881-99, Type III, Grade 1 Class B & C AASHTO M 235, Type III, Grade 1

DIRECTIONS FOR USE

Surface Preparation: The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. New concrete and masonry must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. The Concrete Surface Profile (CSP) should be equal to CSP 4-6 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). Allow substrate to dry before coating application. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM D 4541, and the tensile pull-off strength should be at least 1.7 MPa.

Do not apply epoxy or urethane coatings if there is excessive moisture in the concrete or if the moisture vapor emission rate (MVER) is high. Before application of the coating, perform the "Visqueen test" (ASTM D 4263, modified to 2 hours). Do not apply coatings when test indicates presence of moisture. After surface preparation, a test section application of the coating system is recommended to confirm good adhesion and compatibility of the coating with the surface, and also to confirm appearance and aesthetics.

When coating steel, all contamination should be removed and the steel surface prepared to a "near white" finish (SSPC SP10) using clean, dry blasting media.

Mixing: Mix FLEXOLITH SG using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine Part A and Part B in a 1 to 1 ratio by volume, then mix thoroughly for 3 minutes.

To make FLEXOLITH SG mortar, gradually add clean, dry aggregate to previously mixed FLEXOLITH epoxy and mix thoroughly for 3 minutes. Aggregate types and quantities for mixing are listed in the "Coverage" section above. A low-speed drill and a mixing paddle may be used for small quantities, and a horizontal shaft mortar mixer may be used for large quantities.

Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

Application: See the "Epoxy & Urethane Coatings Application Guide" for installation means and methods.

Note that any coverage rates or mixing ratios for epoxy or epoxy-aggregate combinations found in the "Epoxy & Urethane Coatings Application Guide" are approximations, and are for general reference only. For product specific coverage rates and mixing ratios, refer to this technical data sheet.

The recommended aggregate for heavy duty applications/skid-resistant overlays (high traffic bridge decks, parking deck turn lanes, etc.) is #8 or #9 basalt, #8 or #9 flint rock, or another similarly graded non-slip aggregate, containing at least 10% aluminum oxide for resistance to polishing. For other applications, or where specified, silica sand aggregate may be used.

CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened FLEXOLITH SG will require mechanical abrasion for removal.

PRECAUTIONS / LIMITATIONS

- Store FLEXOLITH SG indoors, protected from moisture, at temperatures between 4°C and 32°C
- Surface and ambient temperature during coating applications should be between 4°C and 32°C
- Material temperatures should be at least 4°C and rising
- Do not apply FLEXOLITH SG if surface temperature is within 3°C of the dew point in the work area
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- Do not thin FLEXOLITH SG
- Do not apply FLEXOLITH SG to slabs on grade unless an uninterrupted vapor barrier has been installed under the slab

- Do not apply FLEXOLITH SG if the substrate is subject to excessive moisture vapor drive or hydrostatic pressure
- Although FLEXOLITH SG is chemically resistant, surface staining of the coating may occur after contact with some chemicals. Consider the use of a urethane topcoat such as EUCOTHANE for improved stain resistance.
- FLEXOLITH SG will discolor upon prolonged exposure to ultraviolet light and high-intensity artificial lighting. An aliphatic urethane topcoat such as EUCOTHANE can minimize these effects.
- Depending on the condition of the substrate, minor surface defects can appear in the coating when applied. Proper surface prep, patching of substrate imperfections, and priming will ensure a better overall finish.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user.
- If FLEXOLITH SG is to be exposed to chemicals, contact Euclid Chemical Technical Service for a top coat recommendation
- In all cases, consult the product Safety Data Sheet before use

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DISCLAIMER: Flowcrete's products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request. Any suggested practices or installation specifications for the composite system (as opposed to individual product performance specifications) included in this communication (or any other) from Flowcrete SA (Pty) Ltd constitute potential options only and do not constitute nor replace professional advice in such regard. Flowcrete SA (Pty) Ltd recommends any customer seek independent advice from a qualified consultant prior to reaching any decision on design, installation or otherwise.