



FLEXOLITH FS

LOW-MODULUS EPOXY COATING AND BROADCAST OVERLAY SYSTEM

PACKAGING

- 500 gal (1,892 L) totes
Code: TD43321500NCFS
- 100 gal (378 L) units
Code: TD43321100NCFS
- 10 gal (38 L) units (MTO)
Code: TD4332110NCFS
- 4 gal (15 L) cases

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 FS will require mechanical abrasion for removal.

SHELF LIFE

2 years in original, properly stored, unopened package

SPECIFICATIONS/COMPLIANCES

- ASTM C881, Type III, Grade 1

DESCRIPTION

FLEXOLITH FS is a two-component, 100% solids, low-modulus, moisture-insensitive epoxy binder with properties that make it suitable for use in applications where stress relief and resistance to mechanical and thermal movements are required. FLEXOLITH FS is formulated for low temperature applications, or where rapid cure is required.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Rapid cure, minimizes down-time
- Can be used as a mortar or broadcast system
- 100% solids - very low VOC
- Easy to use

PRIMARY APPLICATIONS

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

APPEARANCE

FLEXOLITH FS is clear to light amber.

COVERAGE

Bridge Deck Overlay	1 st Coat	2 nd Coat	3 rd Coat (optional)
Flexolith FS (ft ² /gal (m ² /L))	40 (0.98)	20 to 22 (0.49 to 0.54)	20 to 22 (0.49 to 0.54)
#8 Flint Rock or Basalt (lbs/ft ² (kg/m ²))	1.25 to 1.50 (6.1 to 7.3)	1.50 to 2.00 (7.3 to 9.8)	1.50 to 2.00 (7.3 to 9.8)
Parking Deck Overlay	1 st Coat	2 nd Coat	Seal Coat (optional)
Flexolith FS (ft ² /gal (m ² /L))	60 to 80 (1.5 to 2.0)	40 to 60 (.98 to 1.5)	80 to 100 (2.0 to 2.5)
#4 Flint Rock or Basalt (lbs/ft ² (kg/m ²))	1.00 to 1.50 (4.9 to 7.3)	1.25 to 1.50 (6.1 to 7.3)	-----

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

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values
ASTM C1583	Bond Strength	> 250 psi (1.7 MPa)
ASTM C 882	Bond Strength, 14 days	> 2,900 psi (20.1 MPa)
ASTM C1202 AASHTO T77	Chloride Permeability, Final	< 100 coulombs
N/A	Compressive Modulus	125,000 psi (868 MPa)
ASTM D579	Compressive Strength	3 Hours > 1,400 psi (9.6 MPa) 7 Days > 6,800 psi (47.2 MPa)
ASTM C883	Effective Shrinkage	Passes
ASTM D790	Flexural Strength, Final	5,000 psi (34.5 MPa)
ASTM C881	Gel Time, Class B	30 minutes
ASTM D2240	Hardness Shore D	70 Minutes
ASTM C882	Mix Ratio By Volume (part A : B)	1:1
	Tack-Free Time	40 °F (4 °C) 4.5 hours 55 °F (13°C) 3.5 hours 73 °F (23 °C) 2.5 hours 90 °F (32 °C) 1.5 hours
ASTM D638	Tensile Elongation	30 to 60%
ASTM D638	Tensile Strength, Final	> 2,000 psi (13.8 MPa)
ASTM C884	Thermal Compatability	Passes
ASTM D2556	Viscosity (mixed), Brookfield Viscometer, Model RVT	700 to 2500 cps
ASTM D570	Water Absorption, 24 hour	0.2%

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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 C1583, and the tensile pull-off strength should be at least 250 psi (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 D4263) to check if there is moisture present. If moisture is found to be present during the "Visqueen test", perform the "calcium chloride test" (ASTM F1869) as a follow-up to determine the MVER. Contact Euclid Chemical if results indicate a MVER greater than 3.0 lbs. per 1,000 square feet per 24 hours. After surface preparation and moisture testing, 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 FS 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 1:1 ratio by volume, then mix thoroughly for 3 minutes. 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: Surface and ambient temperatures should be between 40 °F and 90 °F (4 °C and 32 °C). Apply properly mixed FLEXOLITH FS using a brush, short nap roller, notched squeegee, spray equipment or other mechanical means to the properly prepared surface. Air bubbles and voids can be minimized by using a spiked roller. 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.

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PRECAUTIONS/LIMITATIONS

- Store FLEXOLITH FS indoors, protected from moisture, at temperatures between 50 °F and 90 °F (10 °C and 32 °C)
- Surface and ambient temperature during coating applications should be between 40 °F and 90 °F (4 °C and 32 °C)
- Material temperatures should be at least 50 °F (10 °C) and rising
- Do not apply FLEXOLITH FS if surface temperature is within 5 °F (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 FS
- Do not apply FLEXOLITH to slabs on grade
- Do not apply FLEXOLITH FS if the substrate is subject to excessive moisture vapor transmission or hydrostatic pressure
- 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
- In cold weather applications, it is recommended that all materials used in the overlay be conditioned to at least 75 °F (24 °C) for at least 24 hours prior to use. Heating of the epoxy components and aggregates will enhance cure times and improve material handling characteristics.
- In all cases, consult the product Safety Data Sheet before use

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