



TECHNICAL DATA SHEET

Description

DuraLine is a fiber reinforced polymer epoxy. It is two-component, 100% solids, high build, spray-applied, structural grade epoxy system. The material can be hand troweled or spray applied up to 1/4" (250 mils) per pass. DuraLine when cured exhibits high strength and flexural properties for partially or fully deteriorated structures.

Features

- 100% solids, no VOCs
- Convenient 1:1 (v) ratio
- Excellent chemical resistance
- Structural, with movement tolerance
- No sag, ultra-high build
- Surface forgiving & moisture tolerant
- Ultra-high adhesion, self-priming

Film Thickness

DuraLine can be applied as a single coat or multi-coat system. Minimum recommended thickness is 60 – 125 mils. Maximum build-up per coat is 1/4" (250 mils) without sag per coat, depending on temperature. For applications requiring thicker lining, multiple passes may be utilized.

Theoretical Coverage

DuraLine is 100% solids and will not shrink. Therefore, the theoretical coverage properties between wet film thickness (WFT) and dry film thickness (DFT) are the same.

One-gallon (231 cu.in.) of neat epoxy, and will yield:

- @ 1/16" (60 mils), product yields 26.7 sq.ft.
- @ 100 mils, product yields 16 sq.ft.
- @ 1/8" (125 mils), product yields 12.8 sq.ft.
- @ 1/4" (250 mils), product yields 6.4 sq.ft.

Surface Preparation

The success of any coating application is directly proportional to the extensiveness of the surface preparation and the care into the application. Surface must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, impregnation, waxes, foreign particles, and weak or disintegrated materials from the surface, and utilize advised methods to achieve a clean and profiled surface.

Concrete: Prepare the concrete by abrasive blasting, high pressure water cleaning or jetting, and/or other approved methods to achieve clean, sound, and profiled concrete (min. ICRI CSP-3) in accordance with SSPC-SP 13 / NACE No. 6. "Surface Preparation of Concrete." NOTE: DuraLine can be applied direct to concrete (DTC), self-priming.

Steel: Inspect and remove oil, grease, chlorides or other contaminants - "Solvent Cleaning" (SSPC-SP1) may be required. Abrasive blasting (or other approved mechanical methods) SSPC-SP10 / NACE 2, "Near-White Blast Cleaning," must be administered in order to achieve a clean surface with a minimum profile of 100 microns (4 mils); remove dust and debris by high compressive air or solvent cleaning (SSPC-SP1) may be required again. Before preparing or applying on steel, verify that the temperature of the surface is at least 3 degrees C (5 degrees F) from the dew point temperature to preclude condensation. NOTE: DuraLine can be applied direct to metal (DTM), self-priming.

NOTE: Coverage values are provided as an estimate for guidance based on theoretical calculations; does not include wastage or surface conditions/imperfections.

(Continued on page 2)



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Technical Properties

Type		proprietary hybrid fiber-reinforced-polymer (epoxy/epoxide)
Finish		light coarse - orange peel (depending on heat & tips)
Mix Ratio		1:1 by volume
Solids by Volume	ASTM D2697	100%
Solvent (VOC)	ASTM D3960	none
Pot Life		30 min. (77F / 200 g mass)
Adhesion Strength	ASTM D4541	substrate failure
Adhesion Strength (steel)	ASTM D4541	2,000 psi
Water Absorption	ASTM D1653	< 0.1 g/sq.m.
Acid Exposure (pH 1, H₂SO₄)		passed
Tensile Strength	ASTM D638	7,800 psi
Flexural Modulus	ASTM D790	580,000 psi
Flexural Strength	ASTM D790	7,000 psi
Compressive Strength	ASTM D695	12,000 psi
Elongation	ASTM D2370	4.5%
Gel Time		25 min. (120F) 10 min. w/ flash exotherm (140F)
Complete Cure		24 hrs (77F, non-potable) 72 hrs (77F, potable)
Temperature Exposure (dry)		5F – 180F
Temperature Exposure (wet)		32F – 180F
Recoat Time		when firm – no max.



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Application Method

DuraLine can be hand troweled or sprayed utilizing specialized equipment, specified, proven and sold by approved equipment vendors. Requires fully heated, plural component system with recirculating and agitating heated hoppers up to 150F, with heated hoses. Mixing occurs in a static chamber prior to a single whip hose; and must have purging capability through the mixing chamber, the whip hose and spray gun. Purge and clean with DuraLine solvent. The system must be fixed ratio of 1:1 by volume with a minimum of 25 gallon preheating holding capacity for each part of material.

Thinning

Do not thin.

Storage & Handling

Shelf life: 36 months, sealed. Store in a dry area away from direct sunlight.

Packaging & Color

Kit comes with A component and B component separately.

- 10 Gallon Kit (pails) sky blue
- 100 Gallon Drums (drums). sky blue

Safety

Consult Material Safety Data Sheet (SDS) for all material safety information. Consult safety manuals of all equipment utilized.