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FLEX GUARD™ TECHNICAL DATA SHEET

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A VORTEX COMPANY

**REPAIR
MATERIALS**

Typical Performance Characteristics

- Color: Light Tan
- Finish: Very Smooth (Manning Coefficient: .009)
- Flash Point > 250°F (121°C)
- Specific Gravity Resin: 1.45
Hardener: 0.97
- Ratio: 4a to 1b by volume
- Dry Service: 30°F - 250°F (121°C)
- Spill/Splash: 190°F (87.7°C)
- Immersion Service: 150°F (65.5°C)

CHEMICAL RESISTANCE

- Acetic Acid 10%
- Ammonium Hydroxide 25%
- Brine Water
- Copper Sulfate
- Diesel Fuel
- Fatty Acids
- Gasoline
- Hydrochloric Acid up to 20%
- Mineral Spirits
- Potassium Hydroxide 50%
- Crude Oil
- Caster Oil
- Ethylene Glycol
- Sodium Chloride
- Sodium Hydroxide 50%
- Sulfuric Acid 75%
- Sewage (Hydrogen Sulfide)
- Alkalis
- Fresh and non-potable water
- Wine
- Ethanol

Flex Guard passes ASTM F1216 chemical resistance requirements.

CORROSION RESISTANT EPOXY PROTECTIVE COATING

DESCRIPTION

Flex Guard™ SE 2000 is a 100% Solids Flexible Urethane/Epoxy hybrid. The extreme Flexibility of Flex Guard SE 2000 makes it the best solution for the most extreme conditions. A 100-150% elongation allows it to be applied where other coatings fail.

Flex Guard SE 2000 exhibits excellent adhesion to steel and concrete; providing superior protection for tanks that typically experience freeze thaw and temperature fluctuation.

FEATURES AND BENEFITS

- 100% Solids, No VOCs
- 100-150% Elongation
- Excellent corrosion and abrasion resistance

APPLICATION SYSTEMS

- Heated Plural Airless Spray Units
- Minimum Output 5000 psi
- Product Hose: Min. - Optimum I.D. 0.375 - 0.5 inch

CURE TIME (at 70°F or 21°C)

- Re-coat Window — 24 hours
- Light Loading — 12 hours
- Immersion (Aqueous) Service — 24 hours
- Full Chemical Cure — 7 days

POT LIFE

- 75°F (24°C) 300 minutes

PACKAGING

Flex Guard is available in 5 gallon pails and 55 gallon drums.

TYPICAL COATING REQUIREMENTS

With Flex Guard®, only 1 coat is needed to attain finished thickness. If additional coats are called for they must be applied before the previous coat has completely cross-linked, typically for 24 hours @ 72°F (higher temperatures/humidity will shorten this window). If coating after re-coat window, brush blast before applying the next coat. Before reblasting, clean and dry surface thoroughly to remove all contamination, including amine blush or condensation. Small areas may be abraded by sanding or wire brushing.

The same requirements apply when overlapping seams of adjacent coating sections to create a continuous protective film. If the coating surface to be overlapped at the seam cannot be brush blasted, use a non-impact means, such as power brushing or sanding, to create adequate mechanical profile.

YIELD

Flex Guard® will yield theoretical coverage of 20 sq. ft per gallon @ 125 mils thickness. Actual surface coverage will depend on substrate porosity and roughness. A wet film thickness gauge may be used to determine actual coating thickness.

SURFACE PREPARATION

Coating performance is largely determined by the degree of surface preparation... More is Better.

CONCRETE & MASONRY substrates must be prepared in a manner that provides a uniform, sound, clean, neutralized surface with sufficient profile suitable for the specified coating. The substrate must be free of all contaminants, such as oil, grease, rust, scale or deposits and have a surface profile equivalent to a CSP2 to CSP5

in accordance with ICRI Technical Guideline No. 03732. This can generally be achieved by abrasive blasting, shot blasting, high pressure water cleaning, water jetting, acid etch, hot water/steam cleaning or a combination of methods.

STEEL surfaces may require “Solvent Cleaning” (SSPC-SP 1) to remove oil, grease and other soluble contaminants. Chemical contaminants may be removed according to SSPCSP 12/NACE No. 5. Identification of the contaminants, along with their concentrations, may be obtained from laboratory and field tests as described in SSPC-TU 4 “Field Methods for Retrieval and Analysis of Soluble Salts on Substrates”. Surfaces to be coated should then be prepared according to SSPC-SP 5/NACE No.1 “White Blast Cleaning” for immersion service or SSPC-SP 10/NACE No. 2. “Near White Blast Cleaning” for all other service. In certain situations, an alternate procedure may be used such as high (>5,000 psi) or ultrahigh (>10,000 psi) pressure water cleaning or water cleaning with sand injection. The resulting anchor profile shall be 2.5-5.0 mils and be relative to the coating thickness specified.

WARRANTY

Quadex™ warrants its products to be free of defects in material and workmanship. Within one year from purchase, if any Quadex product is proven defective, Quadex will replace said product or refund its purchase price, at Quadex’s sole discretion. Quadex’s obligation shall be limited solely to such replacement or refund. There are no other warranties by Quadex, expressed or implied. There is no warranty if Quadex products are used contrary to Quadex’s written directions.

PHYSICAL PROPERTIES

Gel time, 100g at 23oC	311 min
Elongation (%) when cured with GY-6010 3 days at 60C	100-150%
Tear Strength (lb/in)	96
Taber Abrasion, mg (CS 17, 1000 cycles)	< 10 (discussion issues)