TECHNICAL DATA SHEET

Structure Guard® -RS

TECHNICAL DATA

TYPICAL PERFORMANCE CHARACTERISTICS*

CHARACTERISTICS	TEST METHOD	PERFORMANCE
Tensile Strength	ASTM D638	6,000 psi | 41.4 MPa
Tensile Elongation	ASTM D638	3.8%
Tensile Modulus	ASTM D638	550,000 psi | 3,792.1 MPa
Flexural Strength	ASTM D790	16,000 psi | 110.3 MPa
Flexural Modulus	ASTM D790	741 ksi | 5,109 MPa
Compressive Strength	ASTM D695	12,700 psi | 87.6 MPa
Compressive Modulus	ASTM D695	400,000 psi | 2,758 MPa
Tabor Abrasion	ASTM D4060	75-80 Mgs
Adhesion to Concrete	ASTM D7234	Substrate Failure
Adhesion to Steel	ASTM D4541	>3,000 psi | 20.7 MPa

Physical properties were evaluated on compounds cured for 5 days at 77°F | 25°C @ 50% relative humidity.

**The values stated in inch-pound units are to be regarded as the standard. The values given in international system are for information only.*

PRODUCT DATA

- **Color — Light Bluegreen**
- **Finish — Very Smooth (Manning Coefficient: 0.009)**
- **Flash Point — > 250°F | 121°C**
- **Ratio — 2A to 1B by volume**
- **Theoretical Coverage — 20 sq. ft per gallon @ 80 mils | 0.49 sq. m per liter @ 2.03mm thickness**

CHEMICAL RESISTANCE

- **Acetic Acid (10%)**
- **Bleach**
- **Butyl Cellosolve**
- **Deionized Water**
- **Ethanol Methanol**
- **Lactic Acid (10%)**
- **MEK**
- **Nitric Acid (10%)**
- **Nitric Acid (30%)**
- **Sulfuric Acid (70%)**
- **Sodium Hydroxide (50%)**
- **Toluene**
- **Trichloroethane (1,1,1)**
- **Xylene**

QUADEX® A VORTEX COMPANY REPAIR MATERIALS

Fast Setting, Corrosion Resistant Epoxy Coating

DESCRIPTION

Quadex® Structure Guard®-RS is a 100% solids, high-build epoxy coating formulated to provide long-term corrosion protection and high-strength structural enhancement for manholes, pump stations, treatment plants or any wastewater infrastructure subject to high levels of corrosion and/or abrasion. Structure Guard-RS sets extra fast for a rapid return-to-service in the most aggressive and turbulent environments. It finishes smooth to enhance flow and is utilized as an interior or exterior pipe lining. It is also ideal for invert repairs.

FEATURES AND BENEFITS

- **100% Solids, No VOCs**
- **Fast set time**
- **Excellent corrosion and abrasion resistance**

CURE TIME @ 70°F | 21°C

- **Re-coat Window — 2 hours**
- **Immersion (Aqueous) Service — 1.5 hours**

POT LIFE

@ 77°F | 25°C — 9 minutes

PACKAGING

600ml x 300ml cartridge

VORTEX

WARRANTY

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

TYPICAL COATING REQUIREMENTS

With Structure Guard®-RS, 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 2 hours @ 72°F | 22.2°C (higher temperatures/ humidity will shorten this window). If re-coating is needed, brush blast before applying the next coat. Before re-coating, 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.

SURFACE PREPARATION

Coating performance is largely determined by the degree of surface preparation. MORE IS BETTER.

CONCRETE AND 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 may require cleaning prior to surface preparation compliant with SSPC-SP 1, as it must be free of all contaminants such as oil, grease, rust, scale or deposits. A surface profile equivalent to a CSP 4 to CSP 6 must be created in accordance with ICRI 310.2R, or the substrate must be prepared in accordance with SSPC WJ2; this can generally be achieved by abrasive blasting, shot blasting, or high pressure water cleaning (HPWC - 5,000-10,000 psi | 34-70 MPa).

STEEL surfaces may require cleaning prior to surface preparation compliant with SSPC-SP 1 to remove oil, grease and other soluble contaminants. Identification of the contaminants, along with their concentrations, may require additional laboratory and field testing. Surfaces to be coated should then be prepared according to SSPC-SP 10 "Near White Blast Cleaning" for all service. The resulting anchor profile shall be 3.5-5.0 mils and be relative to the coating thickness specified.