

Structure Guard® -RS

PHYSICAL PROPERTIES

TYPICAL PERFORMANCE CHARACTERISTICS*

CHARACTERISTICS	TEST METHOD	PERFORMANCE
Tensile Strength	ASTM D638	10,000 psi 68.95 MPa
Tensile Elongation	ASTM D638	4.4%
Tensile Modulus	ASTM D638	550,000 psi 3,792.1 MPa
Flexural Strength	ASTM D790	20,000 psi 137.9 MPa
Flexural Modulus	ASTM D790	600,000 psi 4,137 MPa
Compressive Strength	ASTM D695	14,500 psi 100 MPa
Compressive Modulus	ASTM D695	400,000 psi 2,758 MPa
Adhesion to Concrete	ASTM D4541	>2,000 psi 13.8 MPa (substrate failure)
Adhesion to Blasted 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.*

TECHNICAL INFORMATION

- **Color:** Light Bluegreen
- **Finish:** Very Smooth (Manning Coefficient: 0.009)
- **Flash Point** > 250°F | 121°C
- **Ratio:** 2A to 1B by volume

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



Fast Setting, Corrosion Resistant Epoxy Coating

DESCRIPTION

Qualex® Structure Guard®-RS is a 100% solid, high-build epoxy coating formulated to provide long-term corrosion protection and 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 fast for a quick 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

YIELD

Structure Guard-RS will yield theoretical coverage of 20 sq. ft per gallon @ 80 mils | 0.49 sq. m per liter @ 2.03mm thickness. Actual surface coverage will depend on substrate porosity and roughness. A wet film thickness gauge may be used to determine actual coating thickness.



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.

EXISTING 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 must be free of all contaminants, such as oil, grease, rust, scale or deposits and have a surface profile equivalent to a CSP3 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.

NEW CONCRETE AND MASONRY SUBSTRATES must be sandblasted, or hydro blasted at 7,000psi @ 4gpm | 482.6 bar @15.14 lpm, to achieve a CSP4.

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 to use such as high (>5,000 psi | 345 bar) or ultrahigh (>10,000 psi | 689.5 bar) pressure water cleaning or water cleaning with sand injection. The resulting anchor profile shall be 2.5-5.0 mils | 0.06-0.127mm and be relative to the coating thickness specified.