

Why Epoxytec Uroflex™

Epoxytec Uroflex™

- **Unique formulation**

Epoxytec is privileged to have expert organic blending experience with specific material chemists on staff who specialize in modification and hybrid technologies utilizing epoxide. The Uroflex™ is truly unique, as it is an epoxy incorporating a blend of novolac (hybrid-novolac resin), and urethane; this results in a urethane-modified-epoxy (UME) blend with novolac. This mixture produces a semi-flexible epoxy, with tighter crosslinking, thus providing the best of all properties that urethanes provide without losing all the benefits an epoxy provides. When cured, Uroflex™ is an epoxy with enhanced chemical resistance from the novolac, enhanced flexibility, sheen, gloss, and density from its urethane modification.

- **Proven & tested**

Probably the most important aspect of any coating is its proven application and effectiveness in different environments. Uroflex™ has proven itself since 1989 with excellent results in some of the most severe environments known, with less than 0.1% touch-up after 10 years, and the ability to renew with minor investment.

Beyond the typical ASTM testing for protective coatings, Epoxytec has participated in a variety of 3rd party testing. Epoxytec Uroflex™ is CIGMAT tested by the



Department of Civil and Environmental Engineering at the University of Houston for construction and rehabilitation of civil infrastructure, undergoing a battery of modified, specific industry testing. Among other modified ASTM testing, noteworthy results came without ideal preparation- bond strength to wet concrete/brick, and sulfuric testing to verify ultra-high resistance to H₂S.

Epoxytec Uroflex™ is approved by the Bureau of Petroleum Storage Systems for containment (EQ#-793).

- **“Green,” environmentally friendly with no VOCs, no solvents, 100% solid**

The Uroflex™ material releases zero VOCs and zero solvents; therefore creates a human friendly and environmentally safe application. Its ease of application also contributes to a near-zero carbon footprint.

- **1-to-1 mix ratio**

What this means to the applicator is that it is easy to mix, no complicated mix ratio, meaning less room for human error, higher installation success.

- **Flexible, with 38% tensile elongation**

Using a proprietary blend, urethane-modified-epoxy; the product can withstand expansion and contraction, as well as vibration from the substrate without cracking or splitting. 38% elongation makes the product more tolerant to tank movement, steel and concrete expansion/contraction and hairline cracking, traffic and ground movement, etc. (more generic epoxies typically yield somewhere between 3% – 6% tensile elongation, making them quite rigid)

- **Adhesion**

Adhesion is one of the most important features of any coating in preventing corrosion for the long-term. Uroflex™ is self-priming and has excellent adhesion up to 2,000 psi on steel and substrate breaking bond strength on concrete (greater than the cohesive strength of concrete itself).

- **Forgiving & surface tolerant**

This is where Uroflex™ shines. Uroflex™ has been proven to be surface friendly. The coating can often bridge the gap when unknown environmental control limitations occur (often happening unintentionally), the coating is able to be applied and outperform better than typical surface sensitive competitive products.

- **Ease of application**

Uroflex™ can be applied by brush, roller or spray, when other coatings require expensive application systems that range from \$50,000 to over \$100,000 per spray rig.

- **Self-leveling & high gloss**

This is important for several reasons. The urethane modification to the epoxy makes the coating UV tolerant (great for above ground structures). The high gloss finish of Uroflex™ is easy to clean, keeping offending buildup and other contaminants from damaging the coating. Its self-leveling capabilities allow the coating to “wet” the surface properly and fill bugholes and cracks adequately. Also the urethane crosslinking provides the Uroflex™ increased impermeability characteristics, making it a long-lasting, durable sealed system.

- **High Build (16 to 50 mils in a single pass)**

What this means to the applicator is that they can apply a thick coating on the first time and eliminate multiple coatings costing time and labor, which results in costing money.

- **Durable & Resistant**

While Uroflex™ has proven itself as a simple 2-coat system. Resists corrosives, seals, and creates a barrier to infiltration or exfiltration.

- **Repairable**

Uroflex™ coating is a system that can be recoated, repaired, and touched-up without complicated preparation- simply clean and degrease, and solvent rub. Maximum recoatability would be recommended with light abrasion. This makes having a preventive maintenance program feasible budgeted life-cycles; requiring simple visual inspection and touch-up (often just with a brush) when needed. Doing this can extend the life-expectancy for decades with a minimal investment and uncomplicated application.