Revised: April 2019

# GasGuard™ 1000

## Polymer Concrete & Lining System

**GG-1001 Primer**
**GG-1002 Polymer Liner/Concrete**
**GG-1003 Surface Color**
**GG-1009 Hardener**

## Product Description

***GasGuard 1000 is a complete polymer concrete and lining system used in highly corrosive concrete and steel environments where corrosion protection, strength and fast return-to-service times are essential. GasGuard 1000 uses the latest custom design in polymorphic isophthalic thermosetting resins to meet the demands of highly corrosive applications.***

***The GasGuard 1000 system is the result of over 25 years of R&D with protective coatings in corrosive environments and was designed to be a far superior lining solution to conventional surface coatings notorious for peeling and flaking. Using an ultra-low viscosity primer, GasGuard 1000 penetrates deep into porous substrates creating an extremely strong mechanical bond in addition to its chemical bonding properties.***

***With the addition of proprietary fillers and aggregates GasGuard 1000 creates a polymer concrete with strength, adhesion, and corrosion resistance properties that far exceed typical concrete mixes.***

## Recommended Uses

***GasGuard 1000 is used as a protective lining system over prepared concrete and steel surfaces in industrial and wastewater exposures. GasGuard 1000 can also be used as a replacement for traditional concrete in patching, structural repairs, and form & pour applications.***

- **Wastewater Treatment Plants**
- **Sugar and Citrus Plants**
- **Lift stations**
- **Manholes**
- **Inverts/filets**
- **Secondary containment areas**
- **Industrial and wastewater tanks**
- **Highly corrosive environments**
- **Pedestals/mounting pads**
- **Concrete repairs**

## Product Characteristics

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|---|---|
| **Finish:** | **Semi-gloss** |
| **Color:** | **White (custom colors upon request)** |
| **Volume Solids:** | **100%** |
| **Dry mils:** | **135 – no maximum** |

## Typical Properties

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|---|---|---|
| **Primer Viscosity @ 77˚F** | **300-400 cPs** | **Brookfield LV3** |
| **Compressive Strength** | **7,430 psi** | **ASTM C31, C39** |
| **Flexural Strength** | **21,650 psi** | **ASTM D790** |
| **Flexural Modulus** | **5.4 x $10^5$ psi** | **ASTM D790** |
| **Tensile Strength** | **11,000 psi** | **ASTM D638** |
| **Tensile Modulus** | **5.6 x $10^5$ psi** | **ASTM D638** |
| **Tensile Elongation** | **2.4%** | **ASTM D638** |
| **Barcol Hardness** | **42** | **ASTM D2583** |
| **Heat Distortion** | **214˚ F** | **ASTM D648** |

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## Drying Schedule 100grams @ 77° F

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|---|---|
| **Gel time:** | **24-28 minutes** |
| **Gel to peak:** | **12-25 minutes** |
| **Recoat:** | **1-hour minimum** |
| **Return to service:** | **1-2 hours** |
| **Full cure:** | **6 hours** |

## Surface Preparation

**Abrasive blasting (wet or dry) is recommended for surface prep. Surface must be clean, dry and in sound condition before applying. Remove all oil, dust, grease, dirt and loose material to provide adequate adhesion.**

**Iron & Steel minimum surface preparation:**

**Atmospheric: SSPC-SP6/NACE 3**
**Immersion: SSPC-SP10/NACE 2**

**Concrete & Masonry minimum surface preparation:**

**Atmospheric/Immersion: SSPC-SP13/NACE 6 (new concrete should be 28 days old or pH tested for full cure prior to application)**

## Application Guidelines

**For GasGuard certified applicators only**

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|---|---|
| **Temperature:** | **0˚F to 150˚F** |
| **Cleanup:** | **Acetone** |
| **Equipment:** | **Casted, poured, troweled, sprayed, brushed or rolled** |
| **Primer:** | **5-10 mils** |
| **Polymer liner:** | **1/8 – 2 inches** |
| **Polymer concrete:** | **2 inches and up (no max)** |
| **Surface color:** | **5-10 mils** |

## Corrosion Data

**See GasGuard 1000 Corrosion Results Guide for specific chemical resistance data.**

## Safety Information

**See Corrosion ISO Resin SDS sheet before use.**

## Warranty Information

**When installed by a Certified Applicator, GasGuard 1000 is backed by a 10 – Year Material Warranty**