

GUARDIAN-RT™

SYSTEM DESCRIPTION

GUARDIAN-RT™ (Patent Pending) is a spray-applied, multi-layer elastomeric waterproofing system designed for railroad bridge deck waterproofing.

APPLICATIONS

- Railroad Bridge Decks

BENEFITS



Rapid return to service



No noxious odors or VOCs



Highly strength and durability



Can be installed in below freezing temperatures¹

COLORS

Standard color of FT-2202 is Yellow (Color Code “680”)²

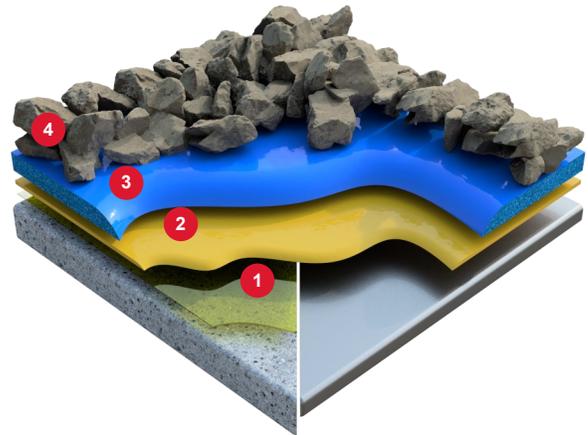
Standard color of FT-7000 is Blue (Color Code “386”)²

REQUEST A DRAW DOWN SAMPLE FOR EXACT COLOR

APPROVALS/STANDARDS

- Meets Requirements of AREMA Ch. 8, Part 29.9.10 Cold Liquid-Applied Elastomeric Membrane

SYSTEM COMPONENTS



1. **Primer:** Varies based on substrate
2. **Waterproofing Layer:** FT-2202
3. **Ballast Protection Layer:** FT- 7000
4. **Ballast Rock (by others)**

¹Polyurea gel time is relatively unaffected by ambient or substrate temperature and may be installed in temperatures down to -20°F (-29°C). However, for applications where a primer layer is required, the cure times for primer may be significantly extended. Contact Freedom Chemical Corporation Technical Service for information on primer recommendations for cold weather applications. Additionally, for application of polyurea onto concrete substrates in below freezing conditions, additional evaluation and testing of the substrate must be performed to ensure that high moisture content is not trapped in the substrate. When a concrete substrate is at or below the freezing point of water, the electronic moisture meters typically used to measure moisture content will give a false reading of “0%”. Contact Freedom Chemical Corporation Technical Service for additional information and guidance.

²FreedomTuff aromatic polyureas are UV stable, but are known to darken or change color when exposed to UV and/or sunlight. This discoloration has shown to have little to no effect on the integrity of the aromatic polyureas.

INSTALLATION OVERVIEW

Installation of any Freedom Chemical Corporation's products should be performed by an applicator with documented experience and a quality assurance program.

Refer to the relevant documentation for complete mixing, handling, and installation information.

Project Conditions

It is generally recommended that the system be installed when air and substrate temperature meet the requirements of the contract documents or is above 32°F (0°C), whichever is more stringent. The system may be installed below freezing with additional testing considerations. See **Footnote 1** on Page 1 of this document. Do not install system if relative humidity is above 85%. Refer to Installation Procedure document for information regarding air/substrate temperature and dew point limitations.

Surface Preparation

Concrete Surfaces: Provide clean, dry, and sound concrete substrate. Repair spalls and other defects using approved patching materials. Prepare concrete surfaces in accordance with SSPC-SP13/NACE No. 6 and achieve a Concrete Surface Profile of at least 3 measured using ICRI CSP chips.

Metal Surfaces: Provide clean, dry, and sound metal substrate. Prepare metal surfaces in accordance with SSPC-SP10/NACE No. 2 and achieve a 4-6 mil blast profile measured using a Surface Profile Gauge.

Application of Products

Step 1 (Primer Coat): Mix and immediately pour primer onto substrate in accordance with the contract documents or the Freedom Chemical Corporation Installation Procedure document.

- Application Rate for Concrete: 100-200 ft² per gallon
- Application Rate for Metal*: 600-800 ft² per gallon.

Allow primer to cure until tack-free prior to performing subsequent steps.

***Note:** *Primer not required on properly prepared metal substrates unless corrosion-inhibiting primer required by project specifications.*

Step 2 (Waterproofing Layer): Spray FT-2202™ onto primed substrate in accordance with the contract documents or the Freedom Chemical Corporation Installation Procedure document.

- Application Rate: 20 ft² per gallon

Allow FT-2202™ to cure until tack-free prior to performing subsequent steps.

Step 3 (Ballast Protection Layer): Spray FT-7000™ onto substrate in accordance with the contract documents or the Freedom Chemical Corporation Installation Procedure document.

- Application Rate: 18 ft² per gallon

Allow FT-7000™ to cure until tack-free prior to performing subsequent steps.

Return to Service Times

Open to Pedestrian Traffic	30 minutes
Open to Vehicular Traffic or Ballast Loading	60 minutes