

# PPG Railroad Bridge Deck Waterproofing

Patented waterproofing systems for a long-lasting solution to prevent corrosion

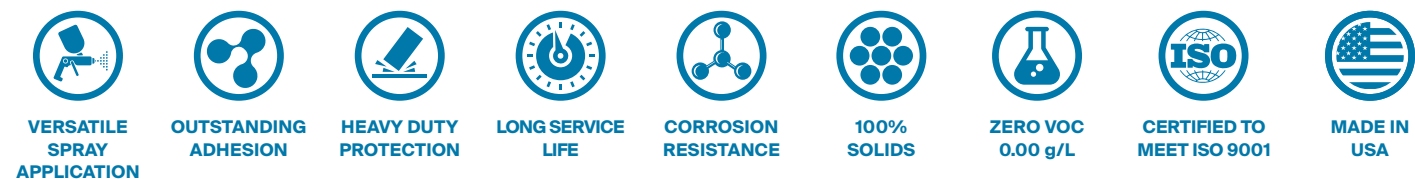




## PPG BRIDGE DECK MEMBRANE systems provide long-lasting protection.

Railroad bridge decks suffer deterioration from the corrosive effects of both natural and man-made agents, including tremendous pounding of high point loads. Our spray-applied elastomeric waterproofing membranes, specifically formulated and highly durable, provide outstanding waterproofing protection with high-performance systems that are impervious to deicing chemicals, water, ballast, stray current and more.

PPG isn't just about coatings – we are a solutions provider and partner with engineers to understand their specific challenges. Our patented technology and unique product features allow us to offer cost-effective solutions to meet design and construction best practices.



### PPG BRIDGE DECK MEMBRANE cold liquid-applied waterproofing technology

The backbone of our waterproofing systems, PPG BRIDGE DECK MEMBRANE is a high-strength, rapid setting, 100% solids, two-component polymer product. This polyurea technology is designed for protection against water, salts, chemicals, and other corrosive effects on steel and/or concrete bridges and elevated deck structures.

#### Flexible

Can be applied in temperatures down to -20 °F (-29 °C) with fast cure and quick return-to-service.

#### Certified

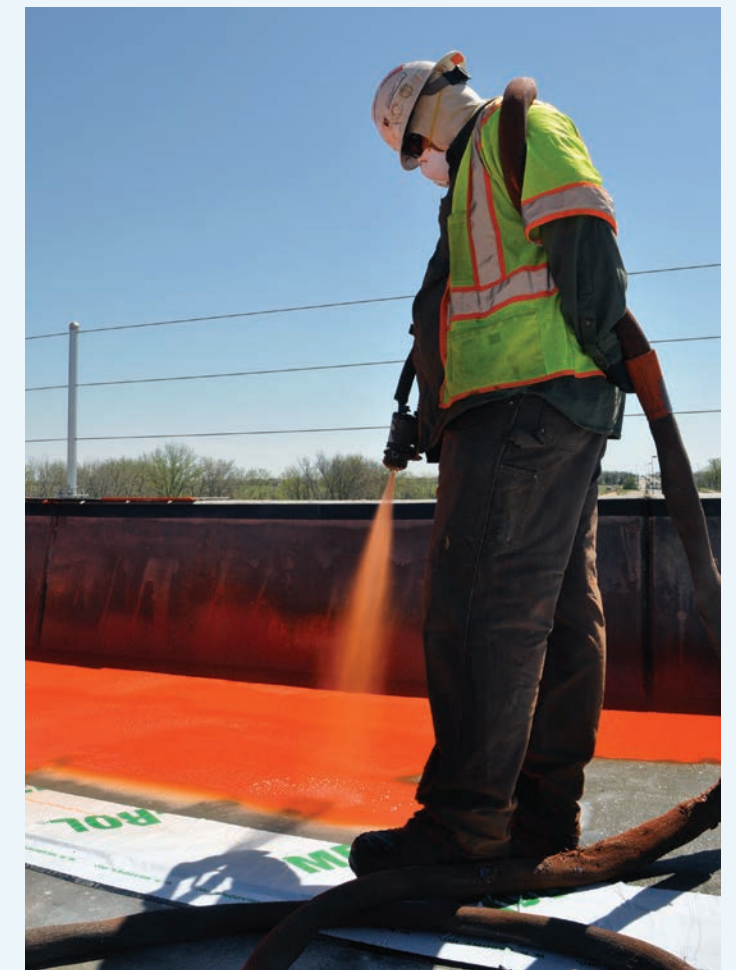
Passes ASTM C1305 for 1/8" crack bridging at 80 mils and meets AREMA Chapter 8, Part 29 for Cold Liquid-Applied Elastomeric Membranes.

#### Tolerant

Can be sprayed over irregular surfaces, including rough concrete, and maintain consistent thickness.

#### Adaptive

Can be sprayed on vertical and overhead surfaces and waterproof bolt heads, penetrations, and complex angles.



## Railroad bridge deck waterproofing systems

Our railroad bridge deck systems all use our PPG BRIDGE DECK MEMBRANE technology. While you can use the membrane on its own with a primer, we recommend adding in a layer that protects this membrane as outlined in our systems below for a long-lasting solution.

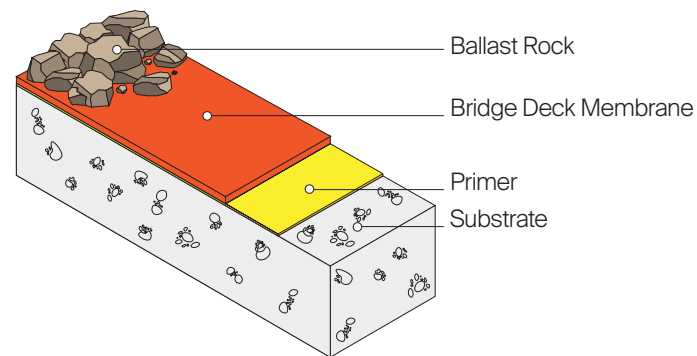


Component	INTEGRATED BALLAST MAT	SLOPED BALLAST MAT	TRAFFIC COATING SYSTEM
Primer	Primer	Primer	Primer
Waterproofing layer	BRIDGE DECK MEMBRANE	BRIDGE DECK MEMBRANE	BRIDGE DECK MEMBRANE
Protection layer	BRIDGE DECK MEMBRANE Top Coat + Bridge Deck Rubber Filler	BRIDGE DECK MEMBRANE Top Coat + Bridge Deck Rubber Filler	BRIDGE DECK MEMBRANE Top Coat + Aggregate + Aliphatic Sealer

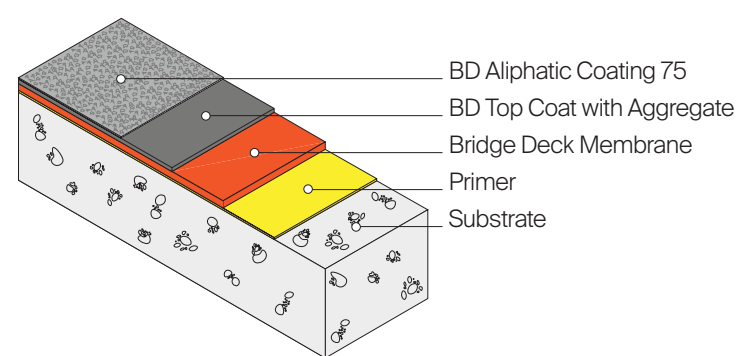
## PPG INTEGRATED BALLAST MAT and PPG SLOPED BALLAST MAT systems

These spray-applied, monolithic films replace protection boards with a unique combination of our PPG BRIDGE DECK MEMBRANE Top Coat and granulated rubber that fully bonds to the matching waterproofing layer. The 1/4" polyurea and rubber is lighter than a 1" protection board and can be both formed in field and installed on any surface, vertical or horizontal. For flat bridge decks, the sloped option is a proprietary solution to direct water to drainage outlets.

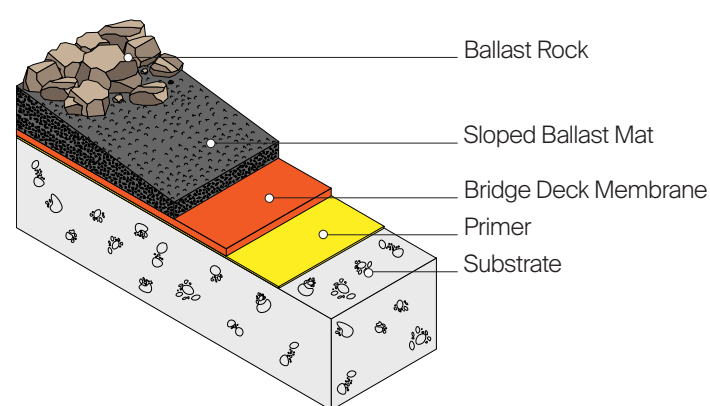
### PPG BRIDGE DECK MEMBRANE



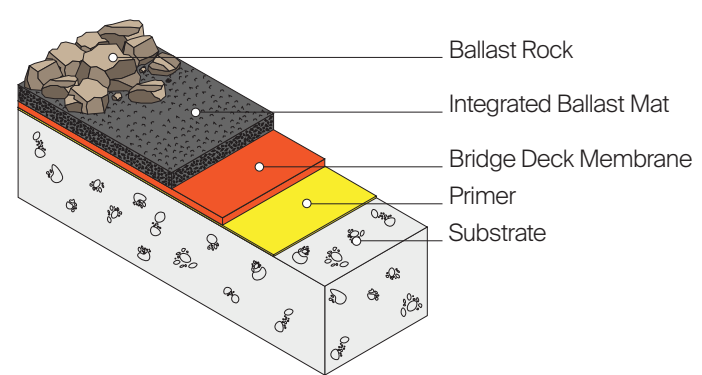
### PPG TRAFFIC COATING SYSTEM



### PPG SLOPED BALLAST MAT



### PPG INTEGRATED BALLAST MAT



## PPG BRIDGE DECK product line

Component	Product	Substrate	Description
Primers	BRIDGE DECK Concrete Primer	Concrete and masonry	2K rapid cure urethane
	BRIDGE DECK Multi-Use Primer	Concrete, masonry, steel, and wood	2K urethane
	BRIDGE DECK Corrosion Inhibiting Primer	Steel	2K rapid cure urethane with liquid corrosion inhibiting additive
	BRIDGE DECK Metal Primer	Steel	1K moisture cure urethane
Membranes	BRIDGE DECK MEMBRANE	Concrete, masonry, steel, and wood	2K polyurea
	BRIDGE DECK MEMBRANE Top Coat	Concrete, masonry, steel, and wood	2K polyurea
	BRIDGE DECK MEMBRANE-S	Concrete, masonry, steel, wood, and geotextile	2K polyurea with low shrink
Other	ARTICULUS® Bridge Deck Expansion Joint	N/A	Preformed expansion joint made of polyurea
	FLEXTAIN 60 and 80 mil options	N/A	Pre-sprayed polyurea liner made of polyurea and non-woven geotextile
	Bridge Deck Rubber Filler	N/A	Granulated rubber

## PPG ARTICULUS® Bridge Deck Expansion Joint

This proprietary joint system is made of the same polyurea materials as the waterproofing membrane and fully compatible with our waterproofing systems. It creates a seamless, monolithic membrane over the bridge deck and joints to protect underlying elements from corrosion and deterioration. Available in custom shapes to accommodate project-specific conditions.



## Railroad bridge deck waterproofing system guide

Use our system guide below to find the right system for your project based on the features and benefits you need.

▼ Features and benefits	Ballasted Bridge Decks	
	BRIDGE DECK MEMBRANE	BRIDGE DECK MEMBRANE + Standard Protection Board
Seamless	●	●
Fully compatible ARTICULUS Expansion Joint system	●	●
Resists damage from ballast	●	●
Accommodates irregular substrates (bolt heads, rough concrete, etc.)	●	
Resists damage from other trades and tamping		●
Protection layer fully bonded to waterproofing		
Protection layer easy to install vertically		
Protection layer doesn't require flashing		
Non-slip surface for foot traffic		
Provides slope towards drains for flat decks		
Increases lifespan of ballast		
Decreases track stiffness on rigid structures (i.e., bridge decks and approaches)		
Modulating track elasticity at transition zones		
Reduces vibration and structure-borne/ground-borne noise		

			Direct Fixation Bridge Decks
BRIDGE DECK MEMBRANE + INTEGRATED BALLAST MAT	BRIDGE DECK MEMBRANE + SLOPED BALLAST MAT	BRIDGE DECK MEMBRANE + DAMTEC Under Ballast Mat	TRAFFIC COATING SYSTEM
●	●	●	●
●	●	●	●
●	●	●	
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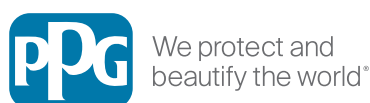
## A high standard for customer service

Our Field Tech Service reps with bridge-specific experience are available to support projects, and on-site inspectors can serve as a resource during the application process, from surface preparation to completed installation. For owners and engineers, we have a robust document library that includes specifications, procedure documents, detail drawings and third-party test results, and we offer assistance with 2D CAD drawings and 3D modeling.

### Certified applicators

PPG BRIDGE DECK MEMBRANE is available only to certified applicators. Every certified applicator has been approved based on technical capability, equipment, and experience with our products. Even after approval, our certified applicators are expected to maintain proficiency with audits, additional training, and equipment upkeep to ensure consistent performance. Our certified applicator program includes a network throughout the United States and Canada.

**Speak with your PPG rep or visit [www.ppgpmc.com](http://www.ppgpmc.com) to learn more.**



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