



COATING SYSTEMS AND COATINGS FOR ORTHOTROPIC DECK BRIDGES

Sherwin-Williams Protective & Marine offers systems proven in practice with excellent corrosion protection and compound properties.

MACROPOXY® HM MASTIC IN THE SYSTEM

Reaction resin sealing system under mastic asphalt:

Sealing on steel bridges has a long tradition. The innovative Sherwin-Williams sealing system has combined proven products with modified hot melt adhesive pellets for decades. In just a few steps, the system provides reliable sealing for long-term corrosion protection of the orthotropic steel plate and an excellent elastic bond with the mastic asphalt with an associated damping effect.

ELASTOMASTIC™ TFN IN THE SYSTEM

Non-wear reaction resin-bonded thin coatings according:

High-quality, wear-resistant thin surfaces are required for pavements and cycleways as well as for carriageway surfaces where asphalt is too heavy. Depending on the requirements, different coating thicknesses of the outer layer and different additives (quartz sand or DUROP) are used. Sherwin-Williams offers high-quality steel surface systems for this application.

MACROPOXY® HM MASTIC

SIMPLE, EFFICIENT AND STRONG

REACTION RESIN SEALING SYSTEM UNDER MASTIC ASPHALT

Sealing system with an innovative adhesive layer

This sealing system uses an adhesive coating to bind the corrosion protection system to the mastic asphalt. As an adhesive layer, the Sikalastic®-827 HT hot melt adhesive pellets are scattered into the bonding layer. During the asphaltting process, the adhesive layer is exposed to temperatures in the range from 160°C to 230°C. This melts and expands the hot melt adhesive pellets and creates a damping system under the mastic asphalt.



PRODUCT BENEFITS:

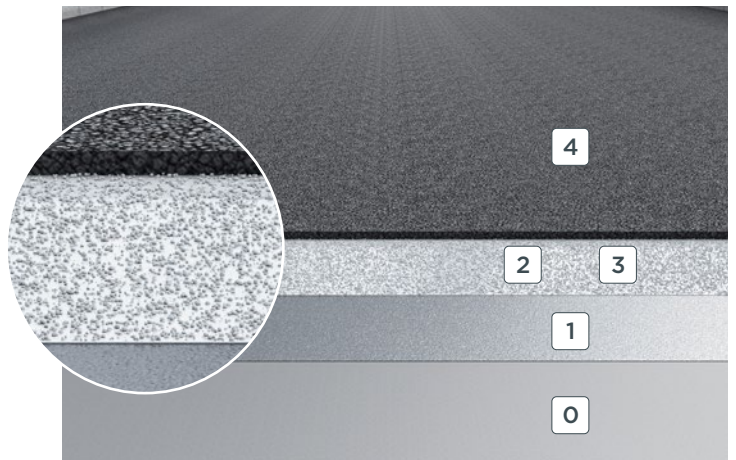
- Very good corrosion resistance
- Excellent composite properties
- Very good adhesion to steel
- Excellent waterproofing and leak-tightness
- Many years' experience



SYSTEM DESIGN

BEL-ST steel bridge sealing with adhesive layer

- 0** Substrate: Steel Sa 2½
- 1** Primer layer:
Macropoxy® HM Primer Plus
2-part base coating containing micaceous iron oxide on an epoxy resin base
- 2** Bonding layer:
Macropoxy® HM Mastic
2-part solvent-free epoxy resin coating
- 3** Adhesive layer:
Sikalastic®-827 HT
Modified hot melt adhesive pellets for scattering
- 4** Mastic asphalt



ELASTOMASTIC™ TFN

WHERE MASTIC ASPHALT IS TOO HEAVY

WEAR-RESISTANT REACTION RESIN-BONDED THIN COATING

APPLICATIONS

Carriageways:

- Lifting bridges
- Bascule bridges
- Movable bridges

Pavements and cycleways:

- Pedestrian footbridges
- Stairways
- Pedestrian and cycleway bridges
- Bridge parapets

ADVANTAGES:

- Very good corrosion resistance
- Excellent adhesion to steel
- Mechanical durability
- Abrasion-, shock- and impact-resistant
- Slip-resistant surface



SYSTEM DESIGN

RHD-ST thin coatings on steel

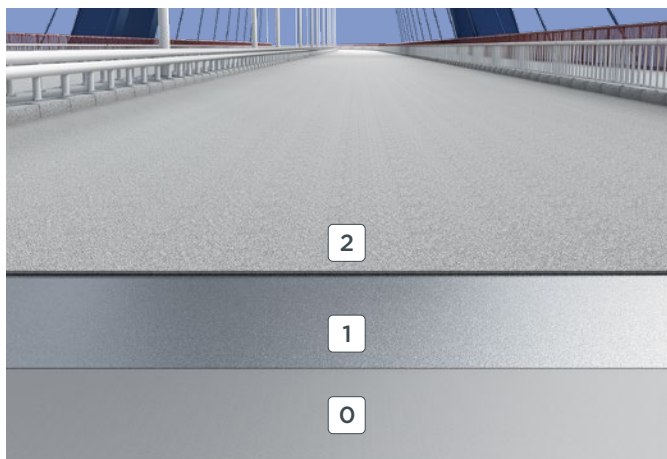
- 0** Substrate: Steel Sa 2½
- 1** Primer layer: **Macropoxy® HM Primer Plus**
2-part base coating containing micaceous iron oxide on an epoxy resin base
- 2** Surface layer: **Elastomastic™ TFN**
2-part solvent-free, thick-layered epoxy polyurethane hybrid liquid plastic
Supplements / spreading agent: **quartz sand** or **Duropol**
- 3** Optional top seal only for pavement and cycleway surfaces: **Acrolon® EG-5**
2-part non-yellowing, pigmented acrylic polyurethane coating

SYSTEM DESIGN

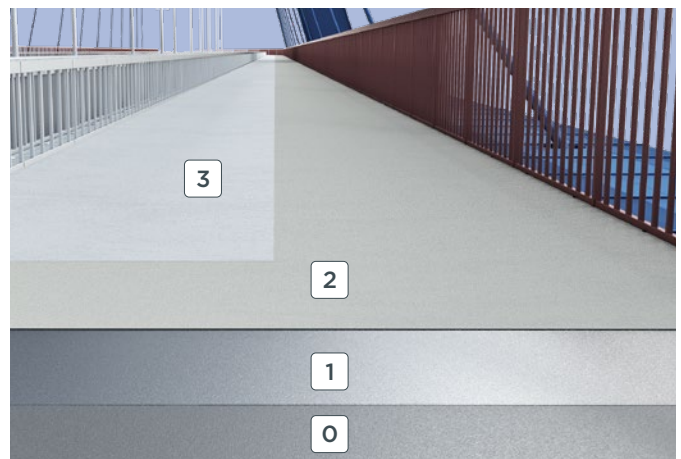
Application for concrete ballast troughs

- 1.** Primer layer: **Resuprime® ST**
2K base coating on epoxy resin with high solids content
- 2.** Surface layer: **Elastomastic™ TFN**
2-part solvent-free, thick-layered epoxy polyurethane hybrid liquid plastic
Supplements / spreading agent: **quartz sand**
- 3.** Optional top seal only for pavement and cycleway surfaces: **Acrolon® EG-5**
2-part non-yellowing, pigmented acrylic polyurethane coating

Carriageways:



Pavements and cycleways:



COATING SYSTEMS FOR STEEL BRIDGES

Sherwin-Williams is your reliable bridge construction partner

Our extensive portfolio of proven, tested and listed coating systems offers you a wide range of options for any steel bridge application. From products for slip-resistant screwed joints, steel surfaces in contact with earth or concrete and other visible surfaces, to steel wire ropes.

Find out more in our brochure.

BROCHURE DOWNLOAD:



THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems - including protective liquid and powder, fire protection and resinous flooring - excel at combating corrosion and help customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Bridge & Highway, Energy, High Value Infrastructure, Manufacturing & Processing, Marine, Rail, Power and Water & Wastewater.

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