

**SHERWIN
WILLIAMS®**

INTERNAL LININGS FOR TANKS, VESSELS AND PIPELINES

**ABSOLUTELY
RESISTANT!**



FROM SPEC TO PROTECT

protectiveeu.sherwin-williams.com

MORE THAN 30 YEARS OF EXPERIENCE

DURABLE, SUSTAINABLE, ADHESIVE AND IMPACT-RESISTANT

Wherever products of different types and concentrations are stored in tanks, vessels or containers, using resistant and durable products is essential. Owners must protect silos, tanks, pipes and secondary containment in the chemical industry against aggressive and corrosive liquids or solids. Our consistent development work has created solutions that meet specific legal requirements, are low in emissions and easy to apply.



THE PROPER COATING
For every bulk material

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INTERNAL LININGS
for the storage of flammable liquids

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INTERNAL LININGS
for the storage of acids, alkalis and chemicals

8

COATINGS FOR TANKS AND PIPEWORK
for municipal and aggressive chemical waste water, process and cooling water

10

INTERNAL LININGS
for potable water, food and drinks

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WATER PROTECTION SYSTEM
for secondary containment and chambers

14

Important notice:

Following the transfer of the Industrial Coatings business from Sika to Sherwin-Williams on 1st April 2022, our entire product portfolio had to be rebranded in accordance with the Sherwin-Williams brand as of 1st July 2023.

Detailed information on product naming and a holistic overview of all old and new product names can be found in our new Product Reference Guide.

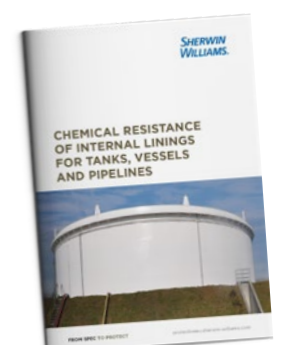
Download the brochure now at:
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ABSOLUTELY RESISTANT!

Find out more in our 'Chemical resistant list'.

Download the brochure now at:
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THE PROPER COATING FOR EVERY BULK MATERIAL

Diverse bulk materials are found in tanks and containers – flammable liquids, aggressive chemicals, wastewater from industrial and residential applications, and materials from the food and potable water sector. All these significantly influence the container’s service life due to their direct contact with the inner surface. Most stored products result in corrosion when permanently exposed to the tank wall; in the worst case, there is a danger of pitting corrosion and damage.



A DECADE OF EXPERIENCE

Internal tank linings are almost indispensable to meet the expected mechanical, thermal and chemical requirements. Our decades of experience in this field and our wide range of products give you the certainty of getting the right system solution for almost any requirement.

Our product data sheets and processing guidelines provide you with important information and outline the boundary conditions for professional processing to meet the expected requirements:

MECHANICAL

THERMAL

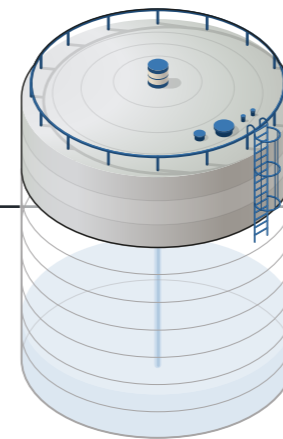
CHEMICAL



PROPER PREPARATION

Using the right product alone is not everything. Even during the design for the construction of a container, experienced planners follow the rules of coating compatible design and avoid 'corners and edges'. Therefore, the components are designed from the outset to create no corrosion-susceptible and difficult to coat areas. As a result, the subsequent coating work is less time-consuming and easier to calculate.

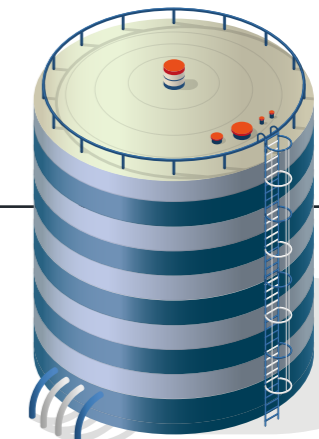
Consequently, proper application of the coating materials is more than decisive, both externally and even more so concerning the interior coating. Utmost care when preparing the surface is a prerequisite for excellent adhesion to the inside of the tank – and applying the coating materials ensures success and long-lasting corrosion protection.



INTERNAL LININGS

The use of internal linings is compliant with stringent regulations. The filling materials are often water-polluting substances and, in the interest of our habitat, must not be released uncontrolled into the environment. Therefore strict requirements have to be met wherever such substances play a role. For containers and pipes in fixed installations, general building authority approvals are needed for interior coating.

In many cases, drinking water is extracted from ground-water pumped by wells or pumped long distances from springs and lakes through pipelines to our cities. Keeping drinking water clean is a top priority in all these extraction and storage processes.



EXTERNAL COATINGS

Without durable and functional corrosion protection, many containers and pipes already look quite old after a few years in the outdoor area, depending on the location. But it's not just the appearance that deteriorates; the strength of the structure can also start to suffer. In the worst-case scenario, the only choice is between a shutdown of the structure or totally renovating it.

For many years this area has been governed by ISO 12944 'Corrosion protection of steel structures by protective paint systems'. Sherwin-Williams coating materials cover the full spectrum of corrosivity categories that are defined there.

Our brochure 'Corrosion Protection for Steel Structures' gives an overview of our coating suggestions according to ISO 12944 and its essential parameters – e.g. classification according to durability.

Download the brochure now at:

protectiveeu.sherwin-williams.com



INTERNAL LININGS FOR THE STORAGE OF FLAMMABLE LIQUIDS

Coatings for the storage of flammable liquids have been a significant part of our development work for decades. Whether crude oils from different regions, jet fuel or biodiesel and rapeseed oil methyl ester, our solvent-free and antistatic EP coating materials protect your storage tanks in the long term against corrosion.



Dura-Plate® 2807 HS-A

Conductive 2-pack epoxy coating with 100% volume solids, applied with 2-pack hot-spray equipment

The single coat application with the rational 2-component hot-spray process with a media-dependent dry film thickness of 500-2000 µm allows a large surface area to be covered per hour and thus minimizes the downtime of the tank capacity. Due to its high physical strength, with good abrasion and impact resistance and its enamel-like pore-free surface which is superbly easy to clean, this coating material is almost universally applicable.

Main application areas

- Steel tanks and bulk containers for the storage of flammable liquids such as kerosene, petrol, heating oil, diesel, bio-diesel
- For the storage of chemicals, oils, concentrated sodium/potassium hydroxide solution and heavily polluted industrial waste water (pH 2-14)

Permissions and test certificates

- General DIBt building authority approval Z-59.13-250
- KIWA directive BRL-K779
- Fulfils test categories: IB 1/2/3/3b/3c/4/4b/4c/5b/7b/11/12 and special test medium urea solution 32,5 % (e.g. AdBlue®) and petrol (E10)

Dura-Plate® 138 A

Conductive 2-pack epoxy coating with 100% volume solids

The solvent-free, airless-application coating material is applied in a single layer with a dry film thickness of 400-1000 µm depending on the storage medium. The coating material represents an alternative for hot spray treatment of small surfaces. Can also be used in hard-to-access areas and subsequent finishing with Dura-Plate® 2807 HS A (max. 48 hrs).

Main application areas

- Small to medium-sized containers for the storage of flammable liquids such as kerosene, petrol, heating oil, diesel, bio-diesel

Permissions and test certificates

- General DIBt building authority approval Z-59.13-363
- KIWA directive BRL-K 779
- Fulfils test categories: IB 1/2/3/3b/3c/4/4b/4c/7b/12 and special test medium urea solution 32,5 % (e.g. AdBlue®) and petrol (E10)

INTERNAL LININGS FOR THE STORAGE OF ACIDS, ALKALIS AND CHEMICALS

Chemicals of any kind can cause significant damage to the surface of steel or concrete. Adequate corrosion protection is, therefore, indispensable. Our tried and tested EP coating systems are the solution for diluted, non-oxidizing acids, concentrated alkaline solutions (even up to pH 14), and various chemicals. Our system based on vinyl ester offers safe protection from highly concentrated acids and oxidizing substances.



Dura-Plate® 299 Airless

Low solvent and highly resistant 2-pack epoxy coating

Coating for airless application, applied in two to three layers depending on the expected load. The coating thickness usually ranges from 200–300 µm per application, with total coating thicknesses of 400–800 µm. This robust and chemically resistant product enables cost-effective application of smaller areas.

Main application areas

- Coating of containers for the storage of chemicals, salts, weak acid and alkali mixtures (pH 5–10)
- Silo coating for dry foods
- Also for the coating of steel sheet piles in chemically polluted waters

Permissions and test certificates

- Approved and listed by the Federal Institution for Hydraulik Engineering (BAW)
- Tested for crack bridging properties in accordance with 'Approval principles for coating systems for concrete in LAU-plants'
- Coating based on epoxy resin for concrete protection acc. to EN 1504-2, DoP, with CE-mark

Dura-Plate® 2807 HS-A

Conductive 2-pack epoxy coating with 100% volume solids, applied with 2-pack hot-spray equipment

A single application in the rational 2-component hot spray process allows film thicknesses to be individually adapted between 500–2000 µm, depending on the medium, thus offering outstanding resistance reserves.

Main application areas

- Steel tanks and bulk containers for the storage of flammable liquids such as kerosene, petrol, heating oil, diesel, bio-diesel
- For the storage of chemicals, oils, concentrated sodium/potassium hydroxide solution and heavily polluted industrial waste water (pH 2–14)

Permissions and test certificates

- Approved by the General DIBt building authority

COATINGS FOR TANKS AND PIPEWORK FOR MUNICIPAL AND AGGRESSIVE CHEMICAL WASTE WATER, PROCESS AND COOLING WATER

Waste water of different origins and composition damage concrete and steel surfaces. The evaluation of the long-term durability of coating materials is based on years of practical experience and the correct assessment of the aggressiveness of the storage media.



Dura-Plate® 2807 HS-A

Conductive 2-pack epoxy coating with 100% volume solids, applied with 2-pack hot-spray equipment

A single application in the rational 2-component hot spray process allows film thicknesses to be individually adapted between 500–2000 µm, depending on the medium, thus offering outstanding resistance reserves. The coating has a high physical strength and is impact, and shock resistant, which makes it ideal, even for water containing abrasive components.

Main application areas

- Aggressive, industrial waste water in the 2-14 pH range
- Large special waste water treatment plants (e. g. bio-tower reactors)
- Heavily loaded sludge digester
- Biogas plants

Permissions and test certificates

- Approved by the building authorities of German DIBt for the internal lining of steel tanks designed for the storage of flammable liquids
- Certified in compliance with KIWA-Directive BRLK779 for the internal lining of steel tanks designed for the storage of flammable liquids

Dura-Plate® 3326 EG-H

High-solid 2-pack epoxy coating

Coating for manual and airless application, applied in two to three layers depending on the expected load. The coating thickness usually ranges from 200–300 µm per work step (approx. 150 µm in case of manual application), with total coating thicknesses between 500–800 µm. Thanks to an optimized filler combination, this coating material is ideal for use in chemically-loaded aqueous media.

Main application areas

- Water with high salinity and waste water in the pH range of 3-12
- Sludge digesters, biogas plants
- Cooling water pipes
- Fire extinguishing water tanks
- Concrete tanks and manholes, pumping stations, etc.
- Depending on requirements these can also be manufactured as a crack-bridging laminated coating structure

Dura-Plate® 299 Airless

Low solvent and highly resistant 2-pack epoxy coating

Coating for airless application, applied in two to three layers depending on the expected load. The coating thickness usually ranges from 200–300 µm per application, with total coating thicknesses of 400–800 µm. This robust and chemically resistant product enables cost-effective application of smaller areas.

Main application areas

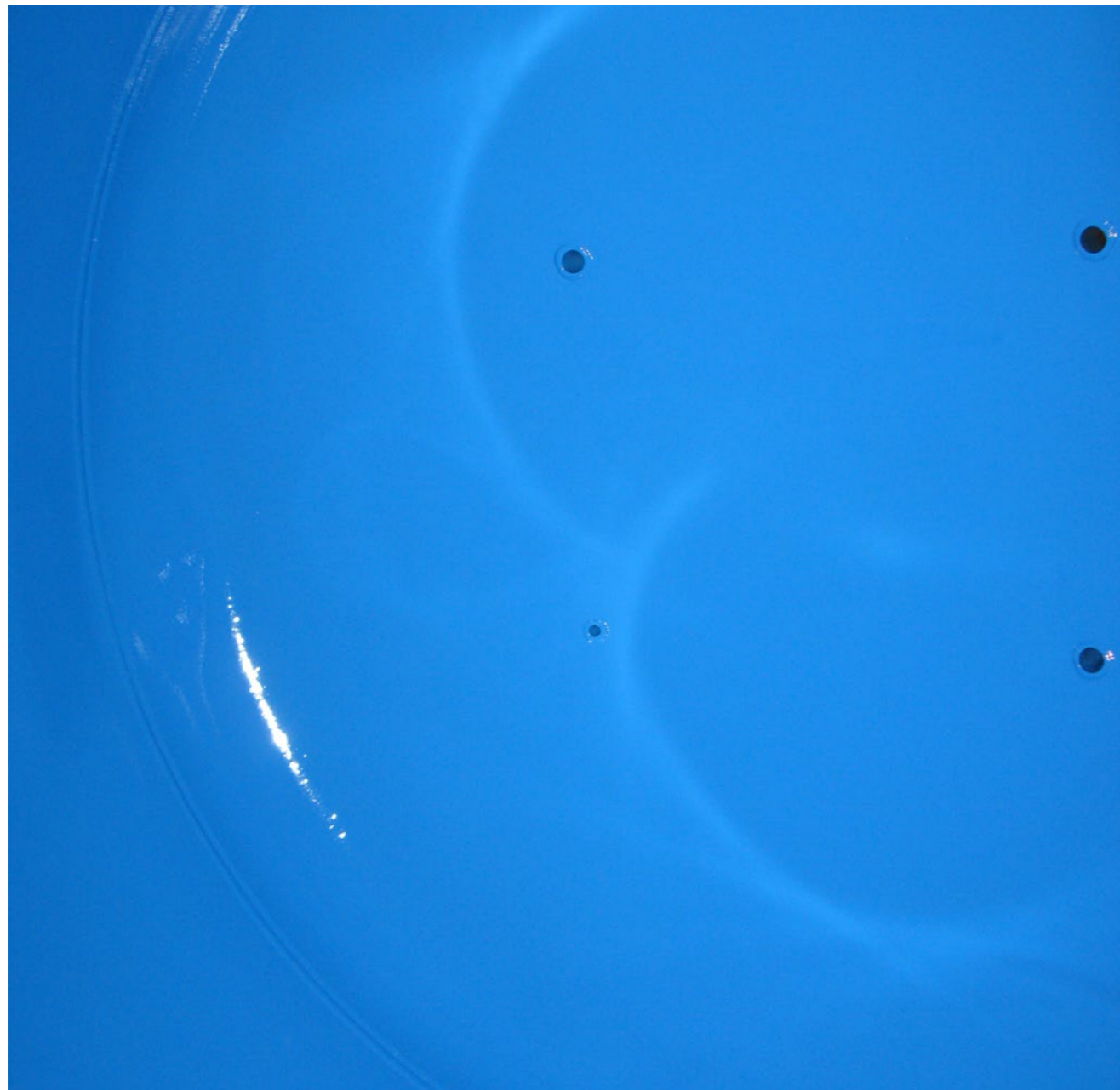
- Municipal waste water
- Industrial waste water (pH 5-10)
- Fire extinguishing water tanks

Permissions and test certificates

- Federal Institution for Hydraulik Engineering (BAW) approval
- Tested for crack bridging properties in accordance with 'Approval principles for coating systems for concrete in LAU-plants'
- Coating based on epoxy resin for concrete protection acc. to EN 1504-2, DoP, with CE-mark

INTERNAL LININGS FOR POTABLE WATER, FOOD AND DRINKS

Potable water is our most valuable foodstuff. It is often obtained from groundwater wells or pumped over long distances from springs and lakes through pipes to our cities. The highest priority is keeping potable water pure during all these conveying and storage processes. Our coating materials, applied on steel, provide you with the certainty of meeting these requirements.



Dura-Plate® 2807 HS

2-pack epoxy coating with 100% volume solids, applied with 2-pack hot-spray equipment

This hot spray coating material was designed specifically for use in the food industry. Its single-layer application in the rational 2-component hot spray process means that coating thicknesses can be individually adapted between 400 - 800 µm, depending on the medium and abrasion requirements. The enamel-like pore-free surface is extremely easy to clean and meets the highest optical demands.

Main application areas

- For the storage of wine and champagne and acid, alkaline and even oil-containing foodstuffs
- Corrosion protection of surfaces such as steel, stainless steel and aluminium, and for the protection of mineral surfaces made of concrete and cement plaster in direct contact with media
- Big volume tanks, pipes (nominal diameter > 300 mm) and equipment used in the food industry

Permissions and test certificates

- Water with high salinity and waste water in the pH range of 3-12
- Sludge digesters, biogas plants
- Cooling water pipes
- Fire extinguishing water tanks
- Concrete tanks and manholes, pumping stations, etc.
- Depending on requirements these can also be manufactured as a crack-bridging laminated coating structure

Dura-Plate® 146 DW

2-pack epoxy resin coating for steel and concrete with 100% volume solids, fast curing

This conventional coating material for airless application can also be painted or rolled onto smaller surfaces. Typical coating thicknesses are between 400-500 µm and are applied in a single airless work step. For manual application, 3 x 150 µm is practical.

Main application areas

- Corrosion protection of surfaces such as steel, stainless steel and aluminium, and for the protection of mineral surfaces made of concrete and cement plaster in direct contact with media
- Tanks, silos, containers, pipes (nominal diameter > 300 mm) and equipment used in water supply schemes as well as in the food and beverage industry
- Fast curing and can be walked on at an early stage
- For the storage of wine and champagne and acid, alkaline and even oil-containing foodstuffs

Permissions and test certificates

- KTW approval according to Federal Environment Agency guideline
- DVGW code of practice W 270
- Physiologically harmless (Institute of Nehring)
- KIWA directive BRL-K 759

WATER PROTECTION SYSTEM FOR SECONDARY CONTAINMENT AND CHAMBERS

Resistance to extremely aggressive chemical loads requires a unique composition with correspondingly optimized resistance characteristics. Our proven coating system offers excellent protection against highly concentrated acids, alkalis or oxidizing media.



Magnalux™ VEL

Glass fibre reinforced, 2-pack vinyl ester based laminate system

This water protection system is composed of multiple layers of glass fibre reinforced laminate which exploits the full range of outstanding chemical resistance of vinyl ester. The system is designed as a load-bearing surface for inflated tires and all-rubber or polyamide wheels and can be applied to steel and concrete substrates. Its electrostatic conductivity suppresses electrical charging and protects against spark generation.

The system comprises of prefilling, laminate and top layer. It provides a level of mechanical resistance which has been specially developed to fulfil the highest standards of chemical resistance. The overall dry film thickness is approx. 3 mm.

Main application areas

- Sealing of steel-reinforced concrete vats and chambers according to the German Federal Water Act
- Vehicle-load compatible floor coating
- Coating of steel tanks for the storage of extremely acid and many alkaline media (pH 0-14) and oxidising materials
- Refineries and chemical manufacturing plants
- Electroplating plants
- Pickling plants

Permissions and test certificates

- General DIBt building authority approval Z-59.12-69
- Fulfils test categories: IB 1/1a/2/3/3a/3b/4/4a/4b/4c/5/5a/5b/6/6b/7/7a/7b/8/9/9a/10/11/12/13/14/15/15a
- Special test media hydrochloric acid < 37%, sulphuric acid < 70%, nitric acid < 65%, chromic acid < 50%, sodium hypochlorite solution (12% active chlorine), hydrogen peroxide < 30%, silicon tetrachloride



More than 30 years of experience with Magnalux™ VEL. A top product that offers proven protection and meets the most important requirements.

INTERNAL LININGS FOR TANKS, VESSELS AND PIPELINES

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.

SHERWIN-WILLIAMS®

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