

PRODUCT DATA SHEET

SikaCor®-146 DW

Future name: Dura-Plate® 146 DW

Epoxy coating for use in the potable water supply, 100 % volume solids

DESCRIPTION

SikaCor®-146 DW is a fast-curing 2-pack epoxy coating for steel.
The coating is tough elastic, mechanically resistant and resistant to abrasion, impact and shock.
Solvent free according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

SikaCor®-146 DW may only be used by experienced professionals.

SikaCor®-146 DW is ideally suited for the corrosion protection of surfaces such as steel, stainless steel and aluminium in direct contact with media.
SikaCor®-146 DW is predominantly used as an interior coating for tanks, containers, pipes (nominal diameter > 300 mm) and equipment used in potable water supply as well as in the food and beverage industry.

CHARACTERISTICS / ADVANTAGES

- Suitable for potable water, many foodstuffs, chemicals, cleaning agents and disinfectants
- Very good adhesion to steel, stainless steel and aluminium
- Economical one-coat application
- No extensive post-treatment before initial filling
- Pinhole detection possible
- Contains no benzyl alcohol

APPROVALS / CERTIFICATES

- Fulfils the requirements of the assessment basis/guideline of the German Federal Environment Agency (Umweltbundesamt UBA) for product hygiene suitability for drinking water according to system 1+ with external monitoring.
- Tested according to DVGW (German Association for Gas and Water) worksheet W 270 (growth of microorganisms in drinking water).
- Physiologically harmless (expert report by Eurofins Institute Nehring).
- Monitored by KIWA NL in accordance with BRL-K 759 as a certified coating for contact with drinking water.

PRODUCT INFORMATION

Packaging	SikaCor®-146 DW	12.6 kg and 6.3 kg net.
Appearance and colour	Blue, beige, red brown Finish: Glossy	
Shelf life	2 years	
Storage conditions	In originally sealed containers in a cool and dry environment.	
Density	~1.35 kg/l	

Solid content ~100 % by volume
~100 % by weight

TECHNICAL INFORMATION

Chemical resistance Depending on the medium, available upon request.
No long term resistance to ozone containing media.

Temperature resistance Dry heat up to approx. + 100°C

SYSTEM INFORMATION

System **Steel, stainless steel and aluminium**
Airless application:
1 x 400 µm SikaCor®-146 DW

Roller:
3 x 150 µm SikaCor®-146 DW

APPLICATION INFORMATION

Mixing ratio	Components A : B
<u>By weight</u>	100 : 26
<u>By volume</u>	100 : 39

Consumption **Material consumption**
Theoretical material-consumption / coverage without loss for medium dry film thickness:

<u>Dry film thickness</u>	400 µm
<u>Wet film thickness</u>	400 µm
<u>Consumption</u>	~0.54 kg/m ²
<u>Coverage</u>	~1.85 m ² /kg

Layer thickness range: At least 300 µm up to max. 800 µm per coat (spraying)

Ambient air temperature Min. + 15°C

Relative air humidity Max. 80 %, surface temperature must be at least 3 K above dew point.

Surface temperature Min. + 15°C

Pot Life

<u>At + 20°C</u>	~20 min
<u>At + 30°C</u>	~10 min

Curing time **Curing at + 20°C**

<u>Touch dry after</u>	~10 h
<u>Walkable after</u>	~18 h
<u>Mechanically and chemically loadable after</u>	~7 days

Waiting time to overcoating Min. 8 h at + 20°C
Max. 72 h at + 20°C

The coating surface must be prepared by sweep-blasting in case of a longer waiting time.

Coatability
With itself, others on enquiry.

Drying time

Final drying time

The following periods should be observed for potable water tanks: 10 to 14 days at a substrate temperature of + 20°C.

SikaCor®-146 DW may only come into contact with potable water if it has been ascertained by testing that the coating is cured to the extent that it can not effect the potable water quality.

On putting the containers/plant components into operation, the DVGW directives (German Association for Gas and Water) governing cleaning and disinfection as well as the applicable potable water regulations, in particular §11 'List of treatment agents and disinfection procedures', must be observed.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Steel:

Removal of welding sputter, grinding of welding seams and welding seam overlaps in accordance with DIN EN 14879-1.

Blast-clean to surface degree Sa 2 ½ according to ISO12944-4.

Free from dirt, grease and oil.

Average surface roughness $R_z \geq 50 \mu\text{m}$.

Stainless steel and aluminium:

Cleaning and homogeneous roughening by means of sweep blasting, ISO 12944-4 with non-metallic blasting abrasives.

Average surface roughness $R_z \geq 50 \mu\text{m}$.

MIXING

Stir component A mechanically before mixing. Add components A+B carefully in the prescribed mixing ratio before processing. To prevent splashing or spilling of the liquid, combine the components with a variable speed electric mixer (stepless regulation) at a low speed for a short period. Then increase the speed to maximum 300 rpm for intensive mixing. The mixing duration is at least 3 minutes and is complete when the two components have combined to form a homogenous mixture. Decant the mixture into a clean container and mix again once more as described above.

Wear suitable safety gloves, a rubber apron, a long-sleeved top, work trousers and tightly-fitting safety goggles/face guard when mixing and decanting the products.

Instruction on initial filling

Before filling the coated tanks or pipes for the first time with potable water or foodstuffs, purging or rinsing with water for at least 1 day.

APPLICATION

The specified dry layer thickness is achieved using the airless-spraying process. Achieving a standard layer thickness and even appearance depends on the application process. Spray applications generally produce the best results. If applying with a paintbrush or roller, further application may be required to achieve the necessary coating thickness depending on the design, local conditions and colour. It is good practice before starting the coating application to test a sample area to determine whether the results of the selected application process meet your requirements with the product in question.

Do not thin SikaCor®-146 DW!

Brush or roller:

- Any bubbles should be removed with a flat surface brush
- Several applications (usually 3) are necessary in order to reach the layer thickness of 400 μm
- The substrate must be pore-free after the application of the first layer

Only mix the quantities which are to be applied in duetime. Consider the fast curing properties of SikaCor®-146 DW!

Airless spraying:

- High performance airless device
- Peak pressure in spray gun at least 180 bar
- Remove sieves. Direct suction (without suction hose)
- Nozzle size 0.48 - 0.58 mm
- Spraying angle e.g. 50°
- Spray hoses ¾", max. 20 m, from spray gun ¼" approx. 2 m
- Material temperature at least + 20°C

At low temperatures we recommend the insulation of the spray hose as well as the use of a continuous flow heater, particularly in case of long spray hoses

Repair:

- Clean flaws or damaged areas, grind or sweep-blast overlapping areas to a matt finish and clean off all traces of dust
- Overcoat immediately afterwards

CLEANING OF EQUIPMENT

Sika® Thinner E+B

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sherwin-Williams` products, are given in good faith based on Sherwin-Williams` current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sherwin-Williams` recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product`s suitability for the intended application and purpose. Sherwin-Williams reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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