

30 Jahre

ENVIRAL[®]

Oberflächenveredelung GmbH



**BAW Bundesanstalt
für Wasserbau**

BAW approval according to IM1

POWDER COATING FOR HYDRAULIC STEEL CONSTRUCTION

- BAW approval according to Im1
- Highly efficient mechanical resistance
- Intelligent SmartCorr[®] corrosion protection
- Antifouling protection against microorganisms
- Responsible towards the environment

#powderpower for future

NEW! field-tested and scientifically accompanied

INNOVATIVE AND HIGHLY EFFICIENT POWDER COATING FOR HYDRAULIC STEEL CONSTRUCTION



Steel constructions of all kinds must be protected against corrosion in order to maintain static safety and fatigue strength.

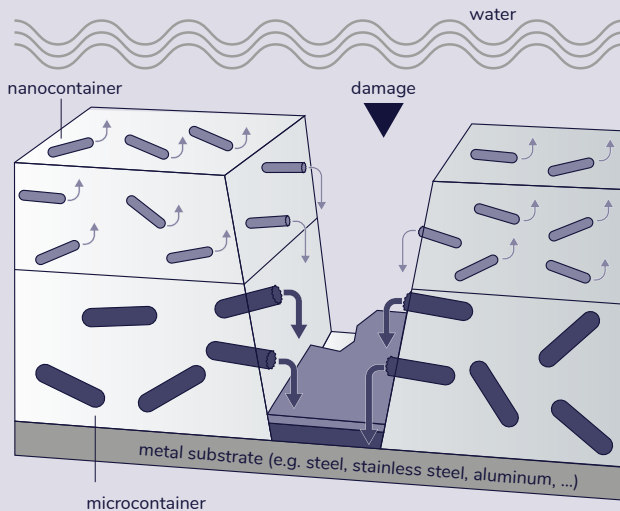
The new and innovative powder coating system of ENVIRAL® Oberflächenveredelung GmbH is based on an intelligent and highly effective corrosion protection (SmartCorr®) as well as an excellent antifouling protection against the permanent formation of microorganisms and the adhesion of e.g. mussels.

#HydraulicSteelConstruction #CorrosionProtection #Antifouling #Penstocks #WeirClosures #WeirSystems #SluiceGate #SluiceGateWeir #FlapWeir #FishBellyFlapGate #locks #dams #CanalBridges #ShipLifts #HydropowerPlants #waterways #wastewater #sewage #CoastalReinforcements #PortAndHarbourEquipment #FloodProtection #TrashRacks #gates #flaps #StopLogs

Scientific support incorporating testing institutes as part of the transformation into practice:

The SmartCorr® product developed by ENVIRAL® Oberflächenveredelung GmbH is based on the basic research of the Max Planck Institute of Colloids and Interfaces in the field of nanotechnology. It is patented and exclusively licensed to ENVIRAL® by Max Planck Innovation GmbH.

On this basis, Prof. Dr.-Ing. Bernd Bachert is working on the further development of an innovative and sustainable powder coating system for hydraulic steel construction as part of an R&D project in cooperation with ENVIRAL®. In March 2024, the independent testing institute BAW (Federal Institute for Hydraulic Engineering) has approval according to Im1, suitable for use in fresh water and in the area of federal waterways. The Institute for Antifouling and Biocorrosion Dr. Brill and Partner is also integrated.



Responsibility towards the environment:

The new powder coating system is free from bisphenols, VOCs (volatile organic compounds) and halogens. It does not contain PVC, phthalates or other plasticizers.

- ✓ BAW approval according to Im1
- ✓ excellent corrosion protection
- ✓ convincing antifouling properties
- ✓ longer service life
- ✓ less maintenance cycles and costs
- ✓ reduces downtimes and thus improves profitability
- ✓ responsible towards environment

Permanently efficient:

A fatigue test simulating 35 years of fatigue strength stress showed very good results for the colour samples coated by ENVIRAL® with SmartCorr® and antifouling.



The coating system was tested in the BAW laboratory in accordance with the guidelines for testing coating systems for corrosion protection in hydraulic steel construction and is suitable for use under heavy mechanical loads. We are very pleased having achieved the certificate of approval of the BAW", states Prof. Dr.-Ing. Bernd Bachert, who is highly satisfied with the results.

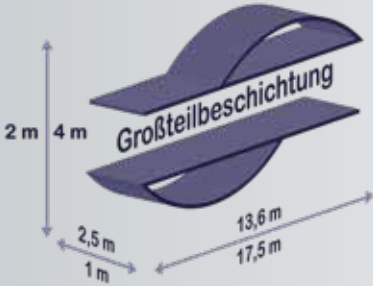


Tested under extreme conditions:

After more than four years of exposure in an extremely corrosive environment, the SmartCorr® coating shows excellent behaviour under real-life conditions. Corrosion attack is minimal even on artificially created damage. Classically coated comparison samples tend to be close to failure.

The innovative SmartCorr® corrosion protection has already been successfully proven in real life in recent years. We are all the more pleased to be able to use and further develop the high requirements as a basis for hydraulic steel construction," says Ing. Rainer Rogovits, Managing Director of ENVIRAL®.

WHAT ENVIRAL® HAS TO OFFER YOU



ENVIRAL® powder coating is not only characterized by its high-quality appearance, but also by the best mechanical and corrosion protection properties. The range of materials we process extends from aluminum, steel and galvanized steel to glass, paper and foil.

2014

ENVIRAL® DE:
DIN EN ISO 14001 Certification

2023

Successful antifouling tests according to ASTM D 3623-78a (2020) and ASTM 6990-20

2003

ENVIRAL® DE:
DIN EN ISO 9001 Certification

2021

ENVIRAL® AT und DE:
GSB Master certifications for aluminum, steel and galvanized steel

2024

BAW approval according to Im1 suitable for use in fresh water and in the area of federal waterways (Federal Institute for Hydraulic Engineering)

Let's stay connected.

We will keep you up to date about ENVIRAL® on

and of course at www.enviral.eu

HERE YOU CAN FIND THE LATEST INFORMATION



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