

30 Jahre

**ENVIRAL**<sup>®</sup>

Oberflächenveredelung GmbH



## POWDER COATING FOR HYDRAULIC STEEL CONSTRUCTION

- Highly efficient mechanical resistance
- Intelligent SmartCorr<sup>®</sup> 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.

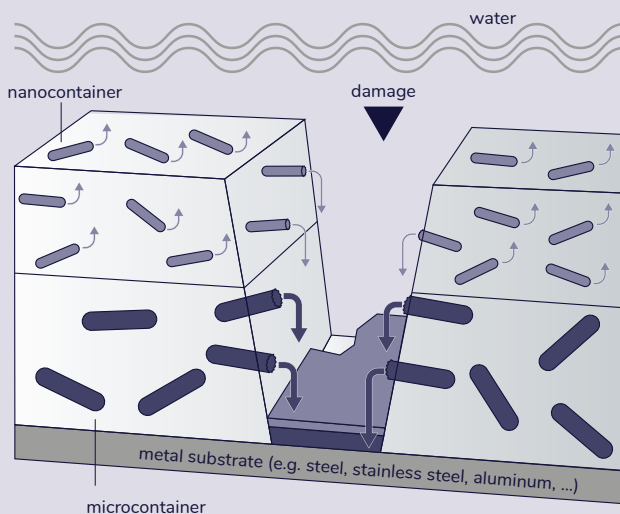
The new and innovative powder coating system of ENVIRAL® Oberflächenveredelung GmbH is based on an intelligent and highly effective corrosion protection (SmartCorr®) as well as an excellent antifouling protection against the permanent formation of microorganisms and the adhesion of e.g. mussels.

#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®. Independent testing institutes such as the Federal Waterways Engineering and Research Institute (BAW) and the Institute for Antifouling and Biocorrosion Dr. Brill and Partner are 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.

- ✓ excellent corrosion protection
- ✓ convincing antifouling properties
- ✓ longer service life
- ✓ less maintenance cycles and costs
- ✓ reduces downtimes and thus improves profitability
- ✓ responsible towards environment
- ✓ water-friendly and harmless to flora and fauna

### 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 samples only show slight deformations at the fixing points, but these do not have a negative effect on the functional properties. In addition, the samples were tested for their insulating properties before and after the test using ‘poro-Scan porosity detection’ and found to be good,” states Prof. Dr.-Ing. Bernd Bachert, who is highly satisfied with the results.

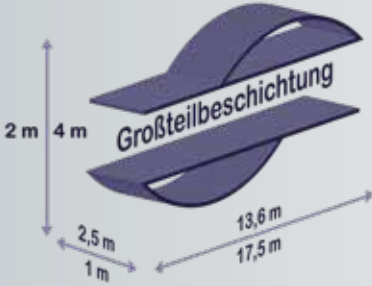


### Tested under extreme conditions:

After almost 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.



## Let's stay connected.

We will keep you up to date about ENVIRAL® on and of course at [www.enviral.eu](http://www.enviral.eu)

HERE YOU CAN FIND THE LATEST INFORMATION



### Contact Germany:

ENVIRAL® Oberflächenveredelung GmbH  
Altdorfer Weg 6  
14823 Niemegek

Free service number. 0800 368 47 25  
phone +49 (0)33843 642-0  
fax +49 (0)33843 642-24  
email [info@enviral.de](mailto:info@enviral.de)

### Contact Austria:

ENVIRAL® Oberflächenveredelung GmbH  
Viktor-Kaplan-Allee 3  
7025 Pöttelsdorf

Free service number. 0800 400 150  
phone +43 (0) 2626 50074  
fax +43 (0) 2626 50074-74  
email [info@enviral.at](mailto:info@enviral.at)

