


Coatings for Filter Vessels:

External Coating of Filter Vessels for Demineralization Process – durable Corrosion Protection with ARC and CP Coatings

Chesterton International GmbH
Daimlerring 9
DE-32289 Roedinghausen

www.ceramic-polymer.de




Czech Republic: Ško-Energo, company for power supply of a well-known car manufacturer, uses special filter vessels for the demineralization of water. The corrosion protection of the tanks was insufficient; the conventional standard top coatings failed after a short life time of 2-3 years. To achieve a long-term reliable corrosion prevention, high-performance products of ARC and CP coating lines were applied.



The demineralization tanks showed heavy corrosion damages due to the chemically aggressive atmosphere and constant condensing humidity on the cold tank surfaces.

The challenge for this coating application was to achieve reliable protection without an extensive preparation of the substrate. Mostly, high-end coatings require a surface cleaned and roughened by sand blasting, which was not possible inside the building of our customer.

The solution was presented with **CERAMIC-POLYMER STP-EP-HV**; it is a surface tolerant system which features excellent corrosion protection with moderate substrate preparation. Therefore, the surface treatment could be conducted by Sponge-Jet blasting - a dry and low-dust abrasive cleaning method. After this preliminary work, **CERAMIC-POLYMER STP-EP-HV** was simply applied by handtools. The recommended layer thickness is 250 µm.

Together with our thick-film epoxy compound **ARC 858(E)** for the rebuilding of damaged surfaces and the topcoat **PROGUARD 169 (37)** Ško-Energo obtained comprehensive and long-term value preservation for their filter vessels. With our products the tanks are in mint condition by efficient refurbishment.

Steps of Application

1. Sponge-Jet blasting = Removal of rust and old coating, roughening of substrate
2. ARC 858(E) = Rebuilding of heavily corroded areas
3. CERAMIC-POLYMER STP-EP-HV = long-term protection layer with anti-corrosive properties
4. PROGUARD 169 (37) = resistant topcoat, available in lots of colors



After Jet-Sponge blasting, **ARC 858(E)** – our ceramic reinforced thick-film coating – was used for the smoothing and filling of the corroded areas. This industrial product is designed to rebuild damaged metal surfaces and provides excellent abrasion resistance. It can be overcoated with ARC or CP protective coatings; in that combination it features a long-lasting upgrade and reliable corrosion protection for new and old storage tanks as well as technical equipment. **ARC 858(E)** is easily applied by trowel.



Next step was the application of our high-performance coating **CERAMIC-POLYMER STP-EP-HV**. This product offers outstanding corrosion and abrasion protection in aggressive environments. Due to its high resistance against chemicals and humidity, **CERAMIC-POLYMER STP-EP-HV** preserve the tanks effectively from corrosion effects by the existing chemical vapors and moist atmosphere. The coating can be applied by airless spraying method or by brush or roller. This product is also available as convenient cartridge system; a clean and economical coating solution for repairs, small areas and areas which are difficult to reach.



PROGUARD 169 (37) is a 2-component highly-crosslinked polyurethane coating. Our Topcoat provides long lasting resistances according to ISO 12944-2, corrosivity class C5. Thus, it is used in industrial environments with high humidity and aggressive atmospheres – the ideal Topcoat for this demanding project. **PROGUARD 169 (37)** is available in RAL and NCS colors, it can be applied in one thin layer by airless spraying or handtools and shows fast curing. In this project a layer of 70 µm was applied by roller and brush.



Our Partner in Czech Republic:

CHESTERTON ČR s.r.o.

Mr. Roman Vrkoslav
Specialista IL/ARC
Masarykova 56
CZ-588 56 Telč

Phone: +420 567 213 095

Email: roman.vrkoslav@chesterton.com

Contact Chesterton International GmbH:

David Garcia Simao (Director)

+49-5223-96276-15

David.GarciaSimao@chesterton.com

Jan Robert Schroeder (Sales Management)

+49-5223-96276-16

Jan.Schroeder@chesterton.com

Woldemar Haak (Sales Management)

+49-5223-96276-13

Woldemar.Haak@chesterton.com

Dominic Ponton (Sales Management)

+49-5223-96276-24

Dominic.Ponton@chesterton.com

Our Products:

- ARC 858(E)
- CERAMIC-POLYMER STP-EP-HV
- PROGUARD 169 (37)

Do you need comprehensive protection against corrosion in aggressive environments?

Our portfolio provides anti-corrosion coatings for any requirements!