

Project:

Secondary clarifier in Września

Location:

Września (Poland)

Project completed:

2014

Owner/s:

MPWiK Września

Applicator/Contractor:

DUKO ENGINEERING

Designer/Architect/Specifier:

Dariusz Kuca

Market sector:

Water Management Industry

Products used & amounts:

MasterSeal M 689

Secondary clarifier in Września

Waterproofing in high chemical demanding environment



Our reference in Września (Poland): Secondary clarifier in Września

The background

Września is a town in central Poland with approx. 30.000 inhabitants.

The waste water treatment plant of the area, built by Września Commune was given to exploitation in 1997 and required renovation works due to the severe damages observed in existing protective coatings under the influence of chemical attack.

The challenge

Secondary clarifiers are exposed to high degree of humidity concrete reinforcement corrosion and eventually release of hydrogen sulphide (H₂S) especially in anaerobic areas.

The damages to the protective coatings are normally related to the highly demanding chemical environment but also mechanical as most of what settles to the bottom is then sent by mechanically driven scrapers towards a hopper thus creating friction and abrasion.

Being a plant in full operational mode, facility managers required the shortest possible downtime and the longest durability of the new newly installed protective coating.

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Our solution

The proposed solution was to apply a hot spray polyurea membrane: MasterSeal M 689.

The membrane was applied on a properly treated and cleaned concrete surface after the application of MasterTop P 617 primer used to ensure adhesion and to seal concrete pores.

MasterSeal M 689 was applied by means of a suitable two-component heated, high pressure, proportioning spray equipment. The application was done by an expert company that could solve all technical requirements at the jobsite.

The customer's benefit

- After hardening, MasterSeal M 689 forms a continuous membrane without seams and joints.
- Excellent long-term chemical resistance, especially to acids, combined with very high elasticity that prevents damages in the membrane due to cracks or movements in the substrate.
- High mechanical, abrasion and impact resistance that prevents damages in the membrane and ensures its long-term durability.
- Very fast curing that allows short-term return to service of the treated installations, reducing the downtime in the plant.

Projects facts at a glance (max. 800 characters)

- Total treated surface: 2.500 m²
- Total sprayed membrane: approx. 5.250 kg
- Time to return to service: less than 24 hours after the application of the membrane.

Master Builders Solutions by MBCC Group

The Master Builders Solutions brand brings all of our expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. The know-how and experience of a global community of construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve your specific construction challenges.

Further information is available at:

<https://www.master-builders-solutions.com/pl-pl>