

Project Short-Report/December 2019

Refurbishment Stormwater Basin: Permanent Durability of Concrete Structure



Project

Concrete repair, surface protection

Project type

Municipal sewage plant, stormwater basin

Applied products

Concrete repair:

Stormwater basin

Corrosion protection StoCrete TK

Bonding agent StoCrete TH 250

Repair mortar StoCrete TG 252

6-30mm

Repair mortar StoCrete TG 254

12-50 mm

Wet-mix spray mortar StoCrete TS 250

Screed material StoCrete TG 154

Wall coping as above, plus

EP primer StoPox GH 205, StoQuarz RF

EP Sealing coat StoPox DV 100

Investor

Kläranlagenbetriebsverband Ems- und Wörsbachtal, Bad Camberg, Abwasserverband Idstein, DE

Planner

SiB Ingenieurgesellschaft mbH, Obermörlen

Applicator

Wayss & Freytag Ingenieurbau AG, Frankfurt, DE

Realisation

12 / 2019

The stormwater overflow basin of the municipal sewage treatment plant Beuerbach near Idstein, Germany, was completed as part of the overall renovation of the sewage treatment plant.



After a thorough analysis of the concrete damage, the substrate was prepared using high-pressure water jets. Exposed reinforcement received StoCrete TK corrosion protection to provide long-term protection against possible future corrosion of the reinforcing steel. Depending on the required layer thickness, the damaged areas were reprofiled using StoCrete TG 252 or StoCrete TG 254 on the afore applied bonding bridge StoCrete TH 250. StoCrete TS 250 was applied to the wall areas of the basin using a wet spraying method. This method of working enabled the vertical surfaces to be worked on quickly and efficiently of the 800 square metre area. The StoCrete TG 154 screed mortar was applied on the 570 square metre floor area of the stormwater overflow basin.



On the wall coping, the experts applied additionally a StoCretec surface protection system consisting of the EP primer StoCrete GH 205 and the EP sealing coat StoPox DV 100. To ensure that the wall coping was sufficiently slip-resistant, the primer was broadcast in excess using StoQuarz RF.

It was particularly important for the investor that the repairs were completed as quickly as possible, as the stormwater overflow basin was out of use during the works. The specialist applicator successfully achieved this goal.

(Photos: StoCretec)