



REFURBISHMENT OF KEY WATER TREATMENT WORKS TANK

MAIN CONTRACTOR – LOWRY BUILDING AND CIVIL
ENGINEERING & CONSERVATION SOLUTIONS

DATE OF CONSTRUCTION – JUNE 2021

CLIENT – NI WATER

OVERVIEW

Conservation Solutions were awarded the refurbishment works at a key Water Treatment Plant in Northern Ireland through DLG Water Ltd.'s major non-infrastructure works for NI Water. The framework contract will facilitate the up-grade, refurbishment, and extension of existing WwTW's and WTW's to deliver operational efficiencies.

Conservations Solutions contacted SDG requiring a proposal for restoring the structure, which had corroded significantly throughout the operational life of the clean water tank. Working closely with our newest partner Master Builders Solutions, we set out to find an appropriate solution that would rectify the tank whilst minimising labour, material volumes, and most importantly allow for a rapid return to service.

After a site survey we proposed the innovative MasterSeal 586 system, along with ancillary products. The MasterSeal 568 is a DWI approved waterproof render coat, capable of being trowel applied to a smooth finish. Master Builder Solutions proposed this system as it offered the simplest method of installation and offers a fast return to service for the asset.

MasterEmaco S 420 – This was used for vertical repairs, around a stray piece of rebar which had little to no cover. MasterEmaco S 420 is fully DWI approved for applications such as this.

MasterSeal 586 – This was used for reinstating the damaged cover layer, applied in a thin coat it offers full protection of the underlying concrete and steel.

MasterSeal 586 include:

- 3-day return to service in potable water retaining structures at $\geq 3^{\circ}\text{C}$
- 1-day return to service in potable water retaining structures at $\geq 10^{\circ}\text{C}$
- Proven high performance
- Capable of withstanding both positive and negative pressure

MasterEmaco S 420 include:

- Separate primers and bonding coats are not required, allowing for a complete repair in a single operation.
- High performance for extreme durability and protection of embedded reinforcement.
- Can be applied at 10-50mm thickness per layer

