

ULTIMATE UNDERWATER

Toproc UW is designed for underwater and inter-tidal applications and can reduce washout by up to 50%.

Product TOPROC UW (UNDER WATER)

Client WESSEX WATER SERVICES LTD.

Main Contractor FINE TURRET LTD.

Project CHEW MAGNA SEWAGE PUMPING STATION

TOPROC UW

Toproc UW is a purpose-designed high performance concrete providing significant washout resistance and overall ultimate strength.

THE CHALLENGE

Clients Wessex Water Services Limited commissioned Lafarge Tarmac to cast a concrete base 1,400mm deep – at the bottom of a 10m deep tank. The concrete had to resist washout during placement because water had to be discharged through a filtration system into a watercourse. They also required a compressive strength of 30N/mm² to allow the tank to be pumped out, which would help minimise overall programme time.

OUR SOLUTION

Toproc UW is a highly cohesive concrete with superb underwater washout resistance. 84m³ of Toproc UW was placed to a depth of 4m underwater in one pour from a single point in the centre of the tank. During the pour, the water level was stabilised in the water chamber to prevent incoming water disturbing the newly placed concrete at the base together with the Toproc UW still entering the centre of the mass of concrete via the tremie/pump.

RESULTS AND BENEFITS

Toproc UW allowed a single point placement of the concrete from the centre and achieved an average difference in concrete depth of only 200mm. At 30 hours, test cubes revealed that 36N/mm² had been achieved, which allowed the tank to be pumped out just 48 hours after placement, yet still retain its structural strength.



