

# Job Reference

Lorca Reservoir,  
Cartagena, Spain



## Project Description:

BASF Construction Chemicals's systems were specified in the construction of Lorca Reservoir, a key reason being that the company was able to supply certification that verified its waterproofing products were suitable for use with potable water and would resist submersion in a chloride solution.

## The Challenge:

Legionnaires Disease is a bacteria that needs humidity and heat (32-45°C) to live and grow, making it a potential risk in the provision of potable water. Adequate maintenance of reservoirs and water systems and their disinfection by professional technicians forms the fundamental basis for its prevention. A variety of processes for water disinfection are available, but generally chlorine-based products are most commonly used. During the summer of 2001 the city of Murcia had its worst ever outbreak of Legionnaires Disease. As a result, a new maintenance programme for the provision of potable water was instigated to help prevent future outbreaks: this included the cleaning and disinfection of all installations at least once a year.

## The Solution:

During the construction of Lorca Reservoir in 2004, an important element was the standardisation of joints to achieve maximum waterproofing. BASF elastomeric waterproof sealant MASTERFLEX® 474, was able to accommodate structural movement where applied to expansion joints and covered with EMACO® S88C Thixotropic repair mortar. After cleaning joints and ensuring the absence of moisture, backer rods were installed to support polyurethane sealant MASTERFLEX® 474, a product suitable for permanent submersion and fully tested for water migration. After the sealant had cured, a layer of MASTERSEAL® 550 polymer-modified waterproof coating was applied to fibreglass mesh placed over the joint to completely cover it. Once hardened, a second layer of MASTERSEAL® 550 was applied onto the reinforcement netting. To smooth out 90° angles and ensure continuity of waterproofing, floor/wall joints were coated with waterproof coating EMACO® S88C Thixotropic repair mortar. MASTERSEAL® 531, a single component waterproof coating suitable for contact with potable water, was spray applied to the internal walls of the reservoir for faster, more uniform application.



## Other BASF Wastewater References:

### United Kingdom

Alnwickhill CTW, Scotland  
Boughton Service Reservoir  
Clandan Service Reservoir, Wales  
Layer De La Haye Service Reservoir  
Southall Water Tower  
St Georges Hill Service Reservoir  
Kilmundy Service Reservoir, Scotland

### Europe

EYDAP, Greece

### Asia Pacific

Bukit Batok Reservoir, Singapore  
Hai Duong Water Supply Plant, Vietnam  
Tone Waterworks, Japan  
Shek Kei Mei Reservoir, Hong Kong  
Upper Pierce Reservoir, Singapore



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