



# KEMPER SYSTEM

A KEMCO Company

## PROJECT REPORT 11/03

### Intricate waterproofing work towers above Essen



### The Project

Telecommunications towers house technical installations which are often worth millions. In order to guarantee uninterrupted operations and to protect the equipment permanently against moisture, the waterproofing to the platforms of such towers is refurbished at regular intervals as a preventive

measure. The client in this case, DeTe Immobilien, specified KEMPEROL® V 210 in his tender for the high-level concrete slab to the telecommunications tower in Essen. This liquid waterproofing system had already gained a good reputation on numerous towers throughout Germany.

## The Brief

The liquid resin also had to be laid beneath the steel sections that are mounted just a few centimetres above the slab around the perimeter of the concrete platform. The supports for the steel rails also had to be covered by the waterproofing material. However, the metal plates cast into the top of the slab were not to be covered but instead merely their edges incorporated into the waterproofing.

## Summer 2003

**Fine waterproofing work at a height of 108 m with material applied in liquid form**

Firstly, all unsuitable, doubtful-looking deposits that might reduce the adhesion of the waterproofing were removed from the entire concrete slab – inner and outer rings – by means of planing and sandblasting. Furthermore, any irregularities in the substrate were evened out with a mixture of KEMPEROL® EP-Primer and quartz sand. The substrate was then treated with KEMPEROL® D-Primer, which guarantees an optimum bond for the subsequent waterproofing material. The KEMPEROL® V 210 reinforced with a grade 200 fleece was laid on this. As this product is applied in liquid form, it follows the contours of the structure exactly and bonds to the substrate over its full area. KEMPERDUR® Natural Quartz 0.7–1.2 was worked into the wet KEMPEROL® in order to achieve a wear-resistant, anti-slip surface, and KEMPEROL® Top Coat was applied after the material had cured.

## The Result

The KEMPEROL® V 210 was applied in two layers directly above the operations centre, in one layer on the cantilevering perimeter. This permanently resilient waterproofing system accommodates movements in the structure without becoming brittle. KEMPEROL® is UV-resistant and its long-term durability has been put to the test in practical applications since 1969.

## The System

**Proven in practice over many decades**

KEMPEROL® D-Primer  
KEMPEROL® V 210 Waterproofing System  
KEMPERDUR® Natural Quartz 0.7–1.2  
KEMPEROL® Top Coat

## The Client

DeTe Immobilien

## KEMPER SYSTEM Partner

BARO Bautenschutz Rostschutz GmbH & Co. KG, Dortmund