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Basilisk info sheet no. 3

Project Europol parking garage

Project overview:

Basilisk Product:	Basilisk Liquid Repair ER7
Project Location:	Europol parking garage The Hague
Client:	Central Government Real Estate Agency
Year:	2015
Crack width:	0,1 mm - 0,8 mm
Total crack length:	≈ 5000 m[1]
Treated surface area:	12.000 m[3]

Figure 1 Project location

Project Characteristics

The parking garage underneath the Europol building in The Hague consist out of three underground parking levels with an entrance for cars on street level (Figure 2). In all three of the floors cracks were present, these cracks were not centered to one specific area on the floor but scattered across the whole floor (figure 3). Cracks by themselves are not a direct problem to the structural integrity of the floors. But due to the wet weather conditions in the Netherlands the cars that enter the parking garage carry water on them. This water then drips of the cars and in to the cracks which can cause corrosion. This process can be aggravated by the presence of de-icing salts in the water. This corrosion of the reinforcements can affect the structural integrity of the building and should therefore be stopped.

Figure 2 Section of the parking garage (TNO)

A second challenge within this project was the availability of the parking spaces during business days. The parking garage has a high usage rate due to the lack of parking space in surrounding area.

Crack specification

For the repair of cracks in general it is important to know the origin of the cracks and the maximum crack width. These parameters are especially important to Basilisk cause the ER7

is limited to nonstructural cracks up to 0,8 millimeters. In this specific project the CGREA already had independent research company TNO make a report of all the cracks in the parking garage. This report contained a complete analyses of the cracks with their location, width and cause. From this report and additional inspections by experts from Basilisk it was determined that almost all the cracks were due to shrinkage with a width varying between 0,1 mm and 0,8mm. And therefore suitable for the usage of ER7.

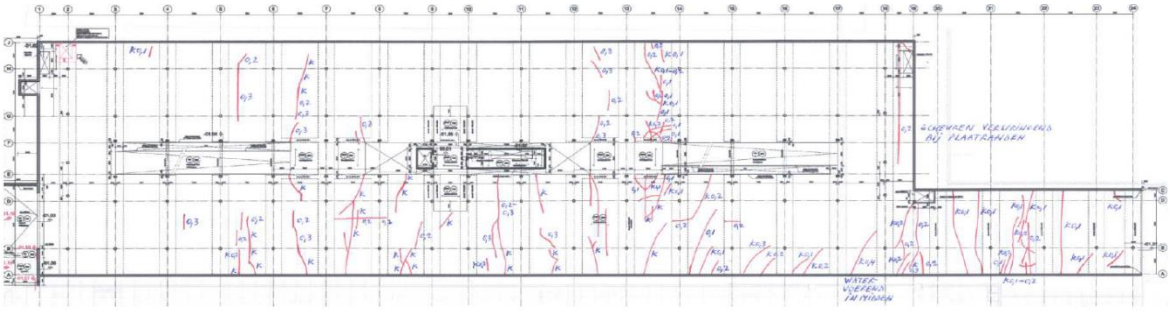

Figure 3 Overview of the cracks (TNO)

Why is Basilisk ER7 ideal in this situation

The vast quantity of cracks in combination with the small crack width made it that conventional repair methods offered by other products would be extremely costly and time consuming without a guaranteed successful result. Were these factors are weak points for the conventional products the ER7 excels. Due to the simplicity of the application process the large area could be treated within the weekend thus not interrupting the availability of the parking garage during the business days. A second advantage of the ER7 over the other methods is the fact that it doesn't need the drilling of boreholes to enter the crack. This means that there is no aesthetic damage to the surface after applying the ER7.

Application of ER7

For the application of the ER7 on the 12.000 m2 the surface area needed to be free of cars and other debris that could block off the cracks. To achieve this the parking garage was closed for an entire weekend and mechanically cleaned. In this weekend a team of six workers then manually applied the ER7 (Figure 4,5). This application was done by first applying two layers of component A followed by one layer of component B. After the curing period of six week this process was repeated.

Figure 4 Application of the ER7 (Basilisk)

Figure 5 Application of the ER7 (Basilisk)

Results

The floors in the parking garage were treated with ER7 in December of 2015 at the date of writing (Feb 2019) no leakages or other complaints have been reported.