BACKGROUND

The Krabbersgat-locks at Enkhuizen are the Netherlands’ busiest recreation locks. This unique structure is called a Naviduct and is the world’s first and only combination of an aqueduct and a ship lock. Because the bridge, located in the Enkhuizen-Lelystad dike, has to be opened for almost every ship, long waiting times are a regular occurrence during the high season. The construction of the Naviduct solved the traffic jams on the road and on the water.

The ship-lock floor, situated about 5 meters below the water table, had a water penetration of 80mm compared to a specification for a maximum penetration of 20mm.

SOLUTION

The Krystol Concrete Waterproofing system was chosen by the Infrastructural dept. of the Dutch Government after a successful water penetration test done by the independent institute INTRON.

The test, performed according to DIN 1045 water penetration standards, made clear that Krystol is an in depth waterproofing system and not a surface coating.

Krysol was applied to 1m² of the shiplock, 3 cylinders were drilled out and tested by INTRON. After putting water pressure on the cylinders for 7 days the penetration was reduced to max. 5mm, well below the 20mm requirement. Subsequent surface removal (2mm) showed continued results well below specifications of 20mm max.

Krysol T1 has been applied on the whole ship-lock floor (600m²) to reduce / prevent water penetration and to meet to the specifications. Six weeks after the application another test was conducted. INTRON measured a maximum water penetration of 4mm instead of the 80mm in the reference cylinders.

PRODUCT
Krysol Concrete Waterproofing System

LOCATION
Enkhuizen, Netherlands

DISTRIBUTOR
Kryton – KrystolProof b.v.

OWNER
Rijkswaterstaat, Ministry of Infrastructure

CONTRACTOR
VBK Hoorn – Van Laere V.o.F.