

Test Report No. 1.3/11006/2.2-2001e

General

Order by: **MASTERTEC GmbH & Co. KG**
Industriestr. 12
DE-96120 Bischberg-Trosdorf

Order date: 8 January 2000

Spamples delivered: 22 November 2000

Material: Bentonite swell-band for sealing the pipe ducts
in concrete construction
MASTERSTOP SK (self-adhesive)
(declaration by customer)

Tests

	Standard	Part
1. Water non-permeability in accordance with	DIN 1048	5

The values measured hold only for the specimens used.

Results are reported to the accuracy given in the standards. In statistical evaluation, the measured accuracy is taken.

This test report comprises 2 pages and 3 enclosures (enclosures A1 – A3).
No part of this test report may be published.



1. General data

The aim of the test was to investigate the water tightness of a pipe duct sealed with a **self-adhesive MASTERSTOP SK** Bentonite swell-band while pressure was provided from one side only.

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2. Specimens, apparatus and test procedure

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48268 Greven
Germany

Two cylindrical specimens, $\varnothing 190$ mm, $l=210$ mm, were made from B25 concrete to which a sealing powder of Knauf Bauprodukte GmbH, Iphofen, was added; they were stored under water at 20 ± 2 °C for 34 days.

The pipe duct consisted of a concreted PVC tube with an outer diameter of 75 mm and a wall thickness of 3.7 mm.

Before concreting, two self-adhesive **MASTERSTOP SK** seals were fitted to the pipe. The joint on each seal was a butt-joint, i.e. without overlap (enclosure A1).

Furthermore, a reference specimen was constructed in order to check the water tightness of the concrete.

After the specimens were taken out of the water, they were incorporated into the testing device.

The water pressure of approx. 0.5 N/mm^2 (5 bars) was applied and was kept constant during the test period of 3 days.

After depressurization, the specimens were removed from the testing device and split in the middle.

After approx. 5 minutes, the limit line to which the water had penetrated was marked and the greatest penetration depth was measured (enclosure A2).

3. Results

None of the specimens showed traces of water penetration.

The water penetration depth determined on the reference specimen (enclosure A2, fig. 2) was 10 mm (permitted water penetration depth $e_w \leq 50$ mm).

The results of the water penetration depth can be seen from table 1.

Table 1: water penetration depth

Specimen number	1	2
Water penetration depth	No traces of water penetration were found underneath the 1st self-adhesive MASTERSTOP SK seal.	The water penetration depth of approx. 15 mm measured underneath the 1st self-adhesive MASTERSTOP SK seal is due to an imperfection in the concrete.



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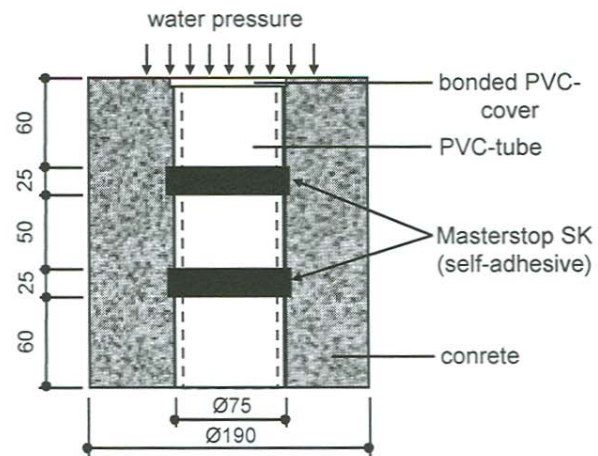


Figure 1

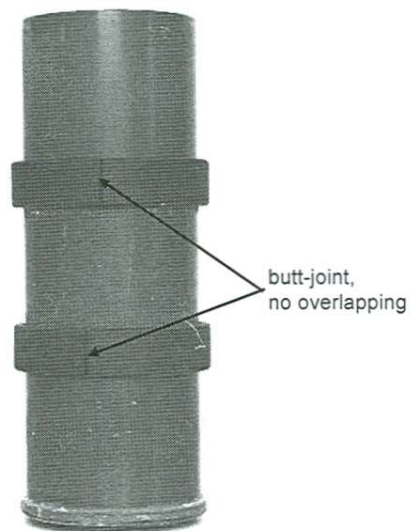


Figure 2

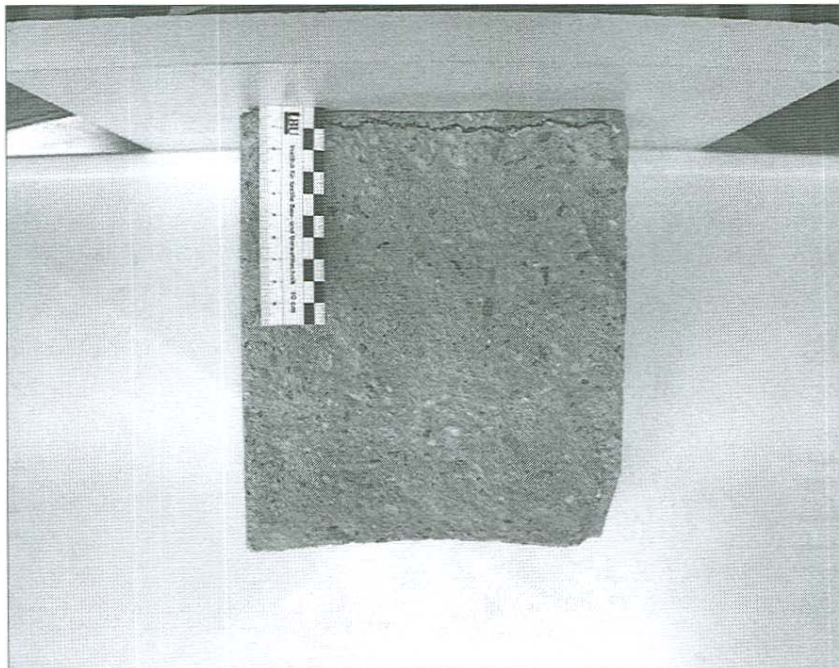


Figure 1

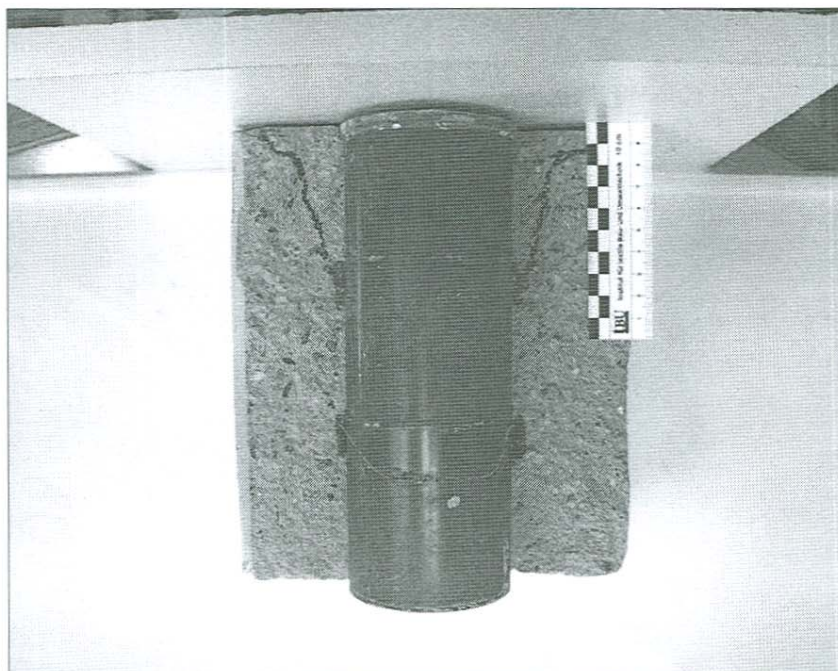


Figure 2

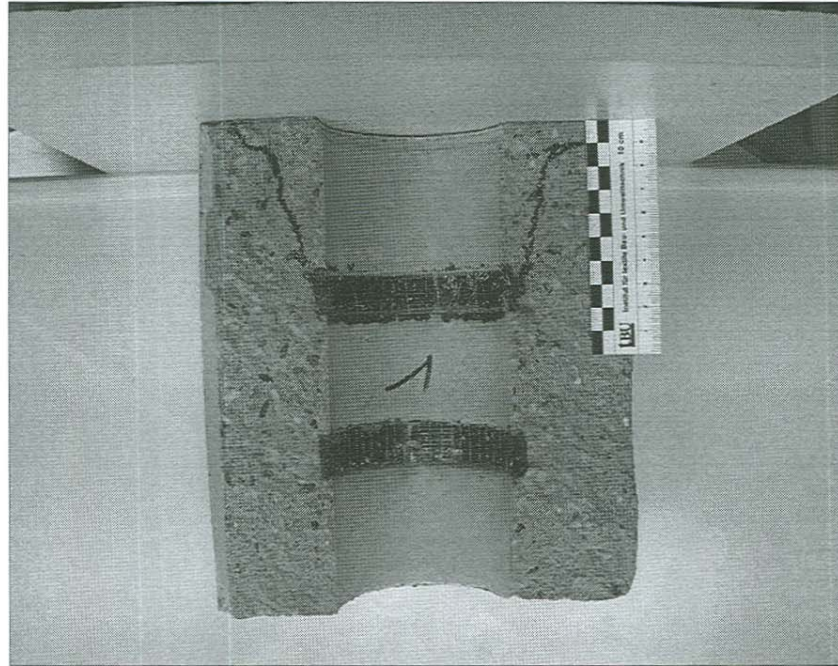


Figure 1

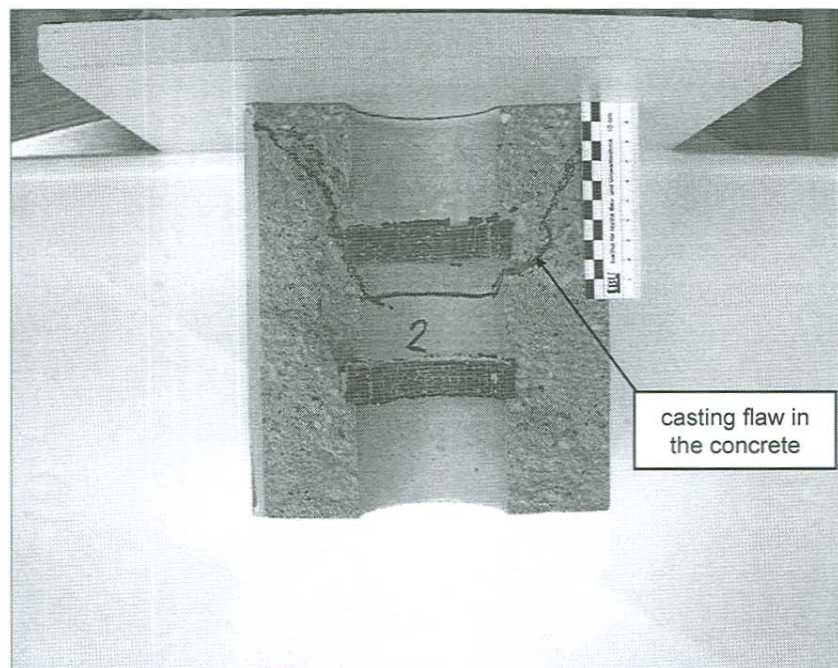


Figure 2