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Carried in accordance with the specifications of ONORM EN ISO 9001:2008 through OOS-Zertifizierungs- und Begutachtung GmbH

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The report consists of 3 pages and 1 annex (2 pages) kuh

Test programme: in accordance with ONORM EN 12390-8 (February 2001 edition) Determination of the water penetration depth of concrete specimens with built-in spacers made of fibre concrete

Product tested: spacers made of fibre concrete; the product tested was delivered by the applicant

Date of commission: 16 April 2009

Customer: PLASTYPIEMONTE S.R.L.

spacers made of fibre concrete with bonded plugs

Test Report
 on

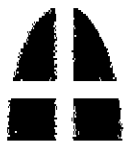
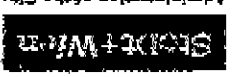
[Circular stamp: ADMINISTRATION DEPARTMENT 39 VIENNA]

MA 39 -VFA 2009-0377.01

Vienna, 12 June 2009

Administration of the City of Vienna
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 PLASTYPIEMONTE S.R.L.



The panels that were ready for the test were installed in the test device in such a way that the planned water pressure could impact the roughened test surface and thus the sealed spacer. A sealing ring with an inside diameter of 10 cm was attached for this purpose.

In accordance with DIN EN 12390-8 water pressure of 500 kPa (5 bar) was applied to the test surface and this was maintained for 72 hours (test period: 2 June to 5 June 2009).

The plugs were stuck in by a representative of the customer using a single-component pasty jointing compound (designation: Nevo-FBK1), whereby two plugs were arranged on each side of the spacer.

On 4 May 2009 the embedded spaces were sealed on both sides with plugs made of fibre concrete.

After being removed from the formwork, the cubes were roughened on the circular surface with a diameter of approx. 10 cm exposed to the water pressure and then taken into storage.

The specimens were stored for 24 hours in the moulds (covered with damp cloths) and then following this under water until the test.

On 16 April 2009 three concrete cubes with an edge length of 20 cm were made in the MA's laboratory using a concrete in quality C25/30, whereby a spacer made of fibre cement was embedded in the centre of each specimen.

2 Implementation of the test

The appearance of the supplied test product can be seen in the enclosed photo documentation.

The plugs were 23 mm long and had a diameter of 22 mm.

The spacers had an external diameter of 45 mm (internal diameter 23 mm) and a length of 20 cm.

engineering laboratory of MA 39.

On 16 April 2009 the customer delivered spacers and plugs made of fibre concrete to the civil en-

1.2 Tested product

concrete with bonded plugs.

The company Plastypiemonte commissioned MA 39 to determine the water penetration depth in accordance with ONORM EN 12390-8 with concrete specimens with built-in spacers made of fibre

1.1 Commission

1 General

MA 39 - VFA 2009-0377.01	Testing, Monitoring and Certifying Agency of the City of Vienna Administration Department 39 VFA - Laboratorien für Construction Technology	Page 2/3
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3 Test results

After the test specimens were split (following the application of water pressure of 5 bar for 72 hours), the following was ascertained:

- Specimen no 4: Fibre concrete spacer moistened thoroughly to approx. 30 mm, no traces of moisture noticeable beyond this
- Specimen no 5: Plugs were pressed inwards through the water pressure, fibre concrete spacers completely moistened, water escaped at the underside of the specimen during the test
- Specimen no 5: Specimen completely dry, no traces of moisture noticeable

In the opinion of MA 39 the thorough moistening and the water penetration in specimen 5 was probably caused by poor bonding of the plugs.

It can also be stated that lateral infiltration between the fibre concrete spacers and the concrete was not noticeable in any of the specimens.

The appearance of the split specimens can be seen in the enclosed photo documentation.

Inspector:	Laboratory Manager:	Manager of the Testing, Monitoring and Certifying Office:
<i>illegible signature</i>	<i>illegible signature</i>	<i>illegible signature</i>
Ing. H. Kurz Techn. Amtsrat**	Dipl. Ing. A. Tichy Oberstadtbaurat**	Dipl. Ing. G. Pommer Oberstadtbaurat**

Translator's note: * Academic qualification; ** Civil service grade



Photo no 2009-0377-01-3
 Specimen 5
 Plug was pressed inwards

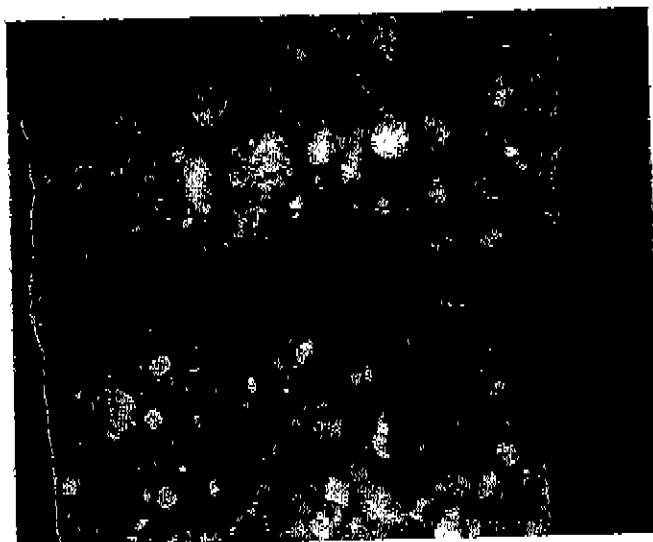


Photo no 2009-0377-01-2
 Specimen 4
 Fibre concrete pipe, moist to about 30 cm, no lateral infiltration pipe/concrete

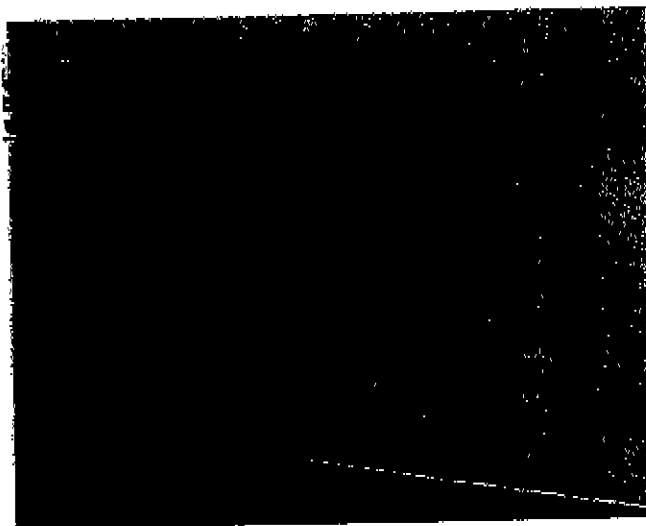


Photo no 2009-0377-01-1
 Test product as supplied:
 Spacer made of fibre concrete,
 with plug

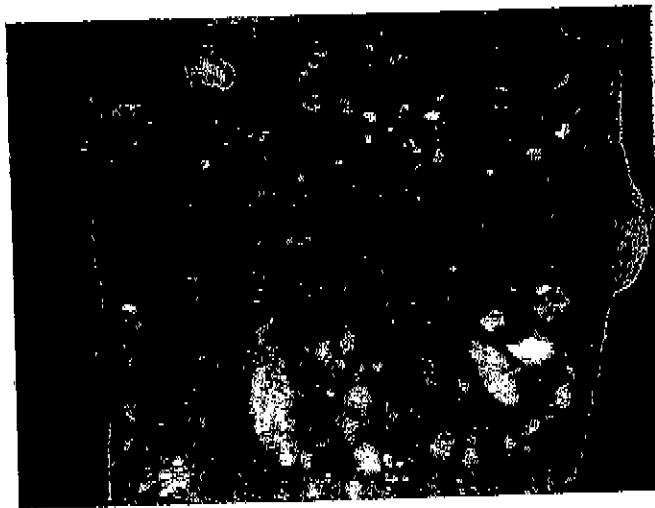


Photo no 2009-0377-01-5
 Specimen 6
 Completely dry



Photo no 2009-0377-01-4
 Specimen 5
 Fibre concrete pipe completely moist,
 wet on the inside as well, water es-
 caped from the underside of the speci-
 men during the test, no lateral infiltra-
 tion pipe/concrete