BUILDING COMMON GROUND

MAX FRANK®

Test Report

Distance tube made of fibre concrete

PB 1.1/ 12-148-1 Ä | 06.06.2012 | english

Testing the water penetration depth on concrete test pieces supplied with built-in distance tubes, sealed on both sides with two fibre-reinforced concrete plugs in accordance with DIN EN 12390-8

Tested by: MFPA Leipzig GmbH, Leipzig

Max Frank GmbH & Co. KG

Mitterweg 1 | 94339 Leiblfing | Germany | Phone +49 9427 189-0 | Fax +49 9427 1588 | info@maxfrank.com

MFPA Leipzig GmbH

Test, Inspection and Certification Authority for
Building Materials, Products and Systems

Division I - Materials in Civil Engineering
Dipl.-Ing. Marko Orgass

Team 1.1 - Mineral Building Materials
Dipl.-Ing. M. Becker
Phone +49 (0) 341 - 6582-148
becker@mfpa-leipzig.de

VMPA-accredited concrete test authority
VMPA-B-2003

Test report no. PB 1.1/12-148-1 Ä

Replaces PB 1.1/12-148-1 from 05.06.2012
from 06 June 2012
1. copy

Subject matter:	Testing the water penetration depth on concrete test pieces supplied with built-in 'FRANK fibre-reinforced concrete distance tubes – MR 22', sealed on both sides with two fibre-reinforced concrete plugs ST220020 in accordance with DIN EN 12390-8
Client:	Max Frank GmbH & Co. KG Mitterweg 1 94339 Leidlfing
Date of order:	10.05.2012
Client's reference:	J. Schmidbauer
Samples received on:	15.05.2012
Sampling:	Client
Identification:	A 1 to A 3
Date of testing:	22.05. to 25.05.2012
Person in charge:	Dipl.-Ing. M. Becker

This document consists of 3 pages and 2 appendices.

Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH (MFPA Leipzig GmbH)

Registered offices: Hans-Weigel-Str. 2b – 04319 Leipzig/Germany
Managing Director: Prof. Dr.-Ing. Frank Dehn
Companies' Register: District Court Leipzig HRB 17719
VAT ID No.: DE 813200649
Tel.: +49 (0) 341 - 6582-0
Fax: +49 (0) 341 - 6582-135

1 Preliminary remarks

MFPA Leipzig GmbH was commissioned to test the water penetration depth in accordance with DIN EN 12390-8 [1] of concrete-cast 'FRANK fibre-reinforced concrete distance tubes – MR 22' with glued-in fibre-reinforced concrete sealing plugs/cones (edge length 15 cm). Unlike in the test specification, the test was performed on composite test pieces. The samples were stored at 20 °C under water until tested.

2 Test results

2.1 Sample identification

Series A: A 1 to A 3 sealed on each side with two fibre-reinforced concrete plugs St220020, glued in with 'Repoxal two-pot adhesive'

Strength class: C 20/25

Date of manufacture: 10.04.2012

Date of testing: 22.05.2012

Age of sample: 42 days

2.2 Water penetration depth

At the end of the test the samples were split along the concrete-cast 'FRANK fibre-reinforced concrete distance tubes – MR22'. The test results are summarised in Table 1. Appendix 1 shows the water distribution after the test pieces were split. Appendix 2 contains a documentation of the test pieces after testing.

Table 1: Series A

Test piece	Water penetration depth [mm]
1	30
2	33
3	26

3 List of references

[1] DIN EN 12390-3 'Testing hardened concrete – water penetration depth under pressure'; Edition 07/2009

The results of the tests refer exclusively to the test items described herein and not to the population. This document does not replace any certificate of conformity or usability as defined by the building regulations (national/European).

Leipzig, 06 June 2012

MFPA Leipzig GmbH

SAC 02
NB 0800

Dipl.-Ing. M. Orgass
Head of Division

Dipl.-Ing. M. Becker
Team Leader

Appendices: Appendix 1 Test records of water penetration depth

Appendix 2 Documentation of the test pieces

Test record of the water penetration depth

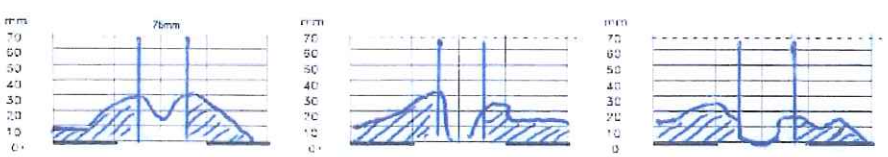
MFPA LEIPZIG GmbH Hans-Weigel-Str. 2b 04139 Leipzig Tel. 0341 / 6582145	**PRÜFUNG DER WASSERUNDURCHLÄSSIGKEIT VON BETON NACH DIN EN 12390-8**	MFPA

Angaben des Auftraggebers

[.....] Eignungsprüfung [.....] Güteprüfung Sollprüfalter .....Tage

Baustelle / Bauwerk			
Bauteil / Entnahmestelle			
Transportbetonwerk			
Betonsorten-Nr.:	Serie A		
Festigkeitsklasse	C 20/25		
TB Lieferschein-Nr.:			
Probekörper - Herstelldatum	03.04.2012		
Zul. Wassereindringtiefe (mm)			
Lagerung bis Einlieferung :	Tage in der Form bei ..... °C und	Tage im Wasser bei ..... °C	

Feststellungen der Prüfstelle

Tag der Einlieferung	15.05.2012	angenommen von :	Becker
äußere Beschaffenheit	i. O.		
nachträgliches Aufrauhen	nein		
Lagerung bis zur Prüfung	7 Resttage in Wasser bei 20 °C		
Probekörper-Kennzeichen	A 1	A 2	A 3
Beginn der Prüfung Datum	22.05.2012	22.05.2012	22.05.2012
Prüfalter bei Prüfbeginn Tage			
Abmessungen mm	150 x 150 x 150	150 x 150 x 150	150 x 150 x 150
Darstellung der Wasserverteilung nach dem Aufspalten der Prüfkörper			
größte Eindringtiefe e_w mm	30	33	26
größter Wert e_w mm	33		

Bemerkungen :

MFPA Leipzig GmbH SAC 02 NB 0800

Leipzig 25.05.2012 .....

Ort Datum Stempel / Unterschrift

Documentation of the test pieces

(Photos 1 to 3)

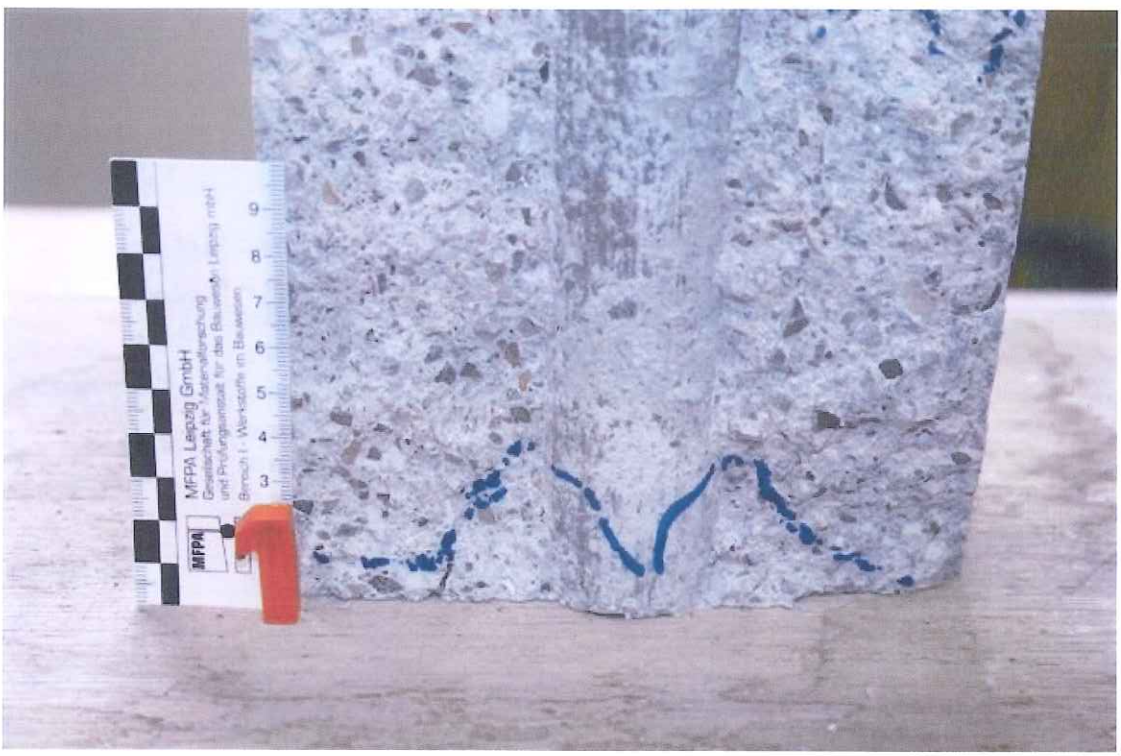


Photo 1: Series A 'FRANK fibre-reinforced concrete distance tubes – MR 22 each sealed with two fibre-reinforced concrete plugs St220020, sample 1

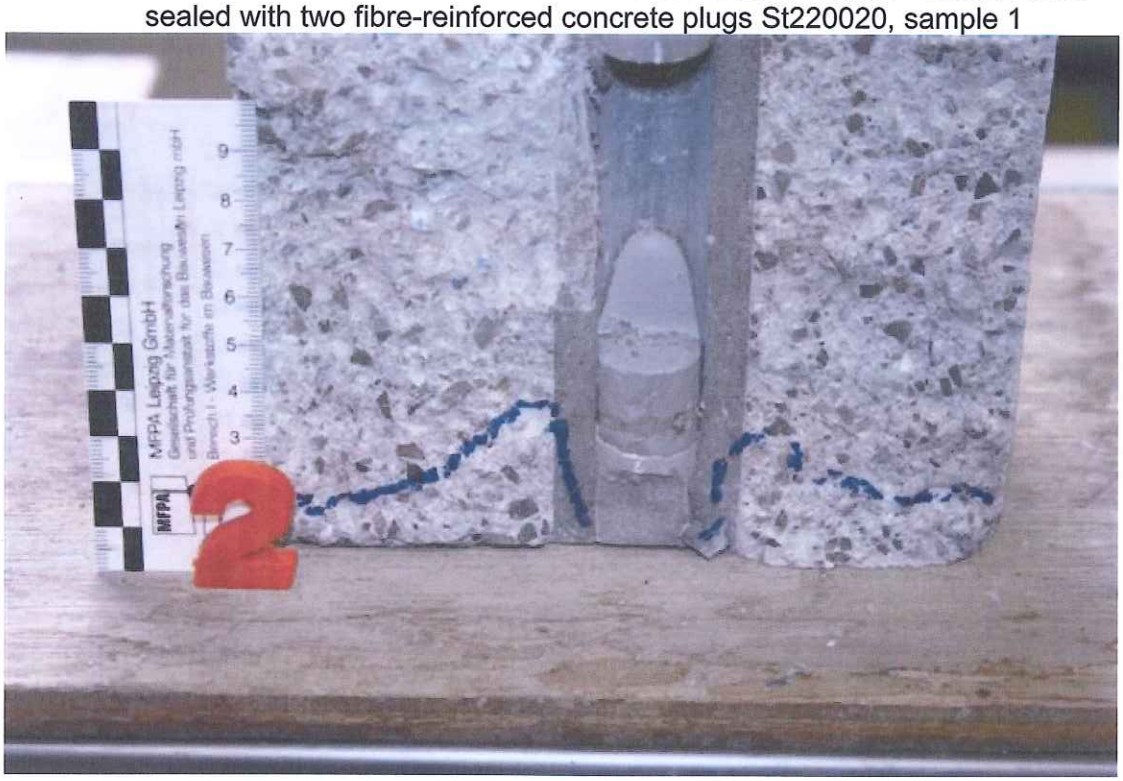


Photo 2: Series A 'FRANK fibre-reinforced concrete distance tubes – MR 22 each sealed with two fibre-reinforced concrete plugs St220020, sample 2

Documentation of the test pieces

(Photos 1 to 3)

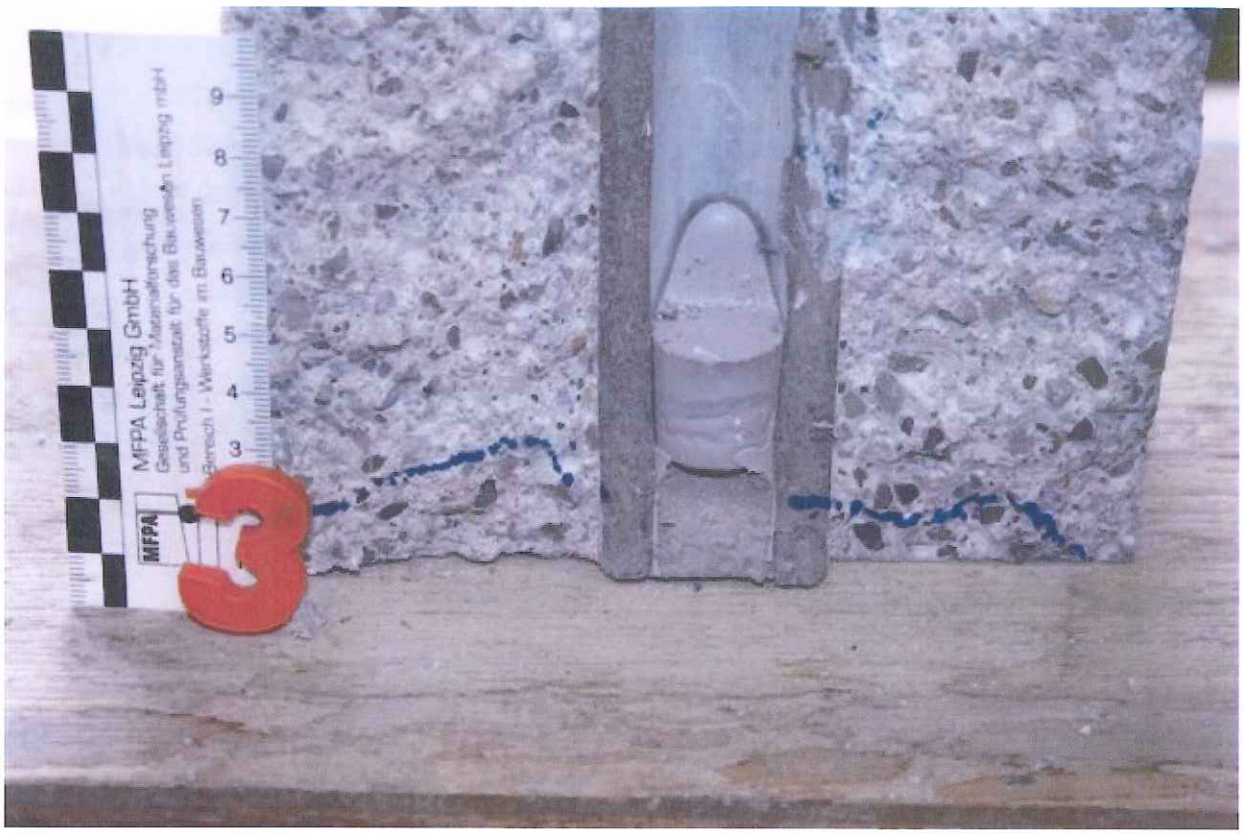


Photo 3: Series A 'FRANK fibre-reinforced concrete distance tubes – MR 22 each sealed with two fibre-reinforced concrete plugs St220020, sample 3