

TEST REPORT

No. 230008462-1

issued 2 July 2012

English Version

Sponsor

MAGE AG
Industriestrasse 34

1791 Courtaman
SCHWEIZ

Order

Testing of the reaction to fire behaviour in the Single Burning Item (SBI) Test according to DIN EN 13823

Date of order: 31 May 2011 and 11 April 2012

Date of sampling The samples have been sampled by the sponsor and have been placed at the disposal of the testing laboratory

Receipt of the samples: 22 August 2011 and 11 April 2012

Date of the tests: 30 September 2011 and 31 May 2012

Description/name of the test specimen

Pipes and fittings made of cast iron according to DIN EN 877 with the designation "Düker SML", assembled by using „NOMIC-ELECTO“ pipe joints of the company MAGE AG

Description of the applied test procedures

DIN EN 13823 „Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item; German version EN 13823: 2010“, version December 2010

The test results solely relate to the above mentioned and on page 2 described test specimen.

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This test report includes 5 pages and 3 annexes.

1. Description of the testing material

1. Description of the testing material

1.1 Details given by the sponsor

Drain pipes and fittings made of cast iron according to DIN EN 877 with outer coating.

Pipe joints „NOMIC-ELECTO“ with EPDM inlay.

1.2 Values determined by the MPA NRW during the specimen preparation

Pipe sections with DN 100 and DN 50 as well as branch pipe tees with transition from DN 100 to DN 50 were delivered. Additionally pipe joints for the pipes DN 100 and DN 50 were delivered by the sponsor.

Outer diameter of the pipe sections DN 100: in average 110.2 mm

Wall thickness: approx. 4.0 mm

Colour of the outer coating: red

Outer diameter of the pipe sections DN 50: i. M. 58,2 mm

Wall thickness: approx. 4,5 mm

Colour of the outer coating: red

The pipe joints consist of steel and have rubber inlays. The closing device of the sockets was equipped with 2 screws each. The name of the company “MAGE AG” was stamped into the surface.

The conditioning of the samples was carried out according to DIN EN 13238.

The mounting and fixing of the specimen for the tests was carried out according to the details of the standard DIN EN 877 (January 2010). The pipes were fixed with pipe clips without rubber inlay and with thread rods onto the calcium silicate board.

2. Versuchsergebnisse

Specimen no.	1	2	3	Mittelwert
Test no.	SBI 383/11	SBI 200/12	SBI 201/12	--
Date of the test	30.09.2011	31.05.2012	31.05.2012	
HRR _{av} (t) in kW	s. annex 1	s. annex 2	s. annex 3	--
THR (t) in MJ	s. annex 1	s. annex 2	s. annex 3	--
HRR _{av} (t) / t in W/s	s. annex 1	s. annex 2	s. annex 3	--
SPR _{av} (t) in m ² /s	s. annex 1	s. annex 2	s. annex 3	--
SPR _{av} (t) / t in m ² /s ²	s. annex 1	s. annex 2	s. annex 3	--
FIGRA in W/s Schwellenwert 0.2 MJ	0	0	0	0,0
FIGRA in W/s Schwellenwert 0.4 MJ	0	0	0	0,0
THR _{600s} in MJ	0,1	0,0	0,7	0,3
SMOGRA in m ² /s	0	0	0	0,0
TSP _{600s} in m ²	27	27	28	27,3
LFS	No	No	No	No
FDP _{≤10s}	No	No	No	no
FDP _{>10s}	No	No	No	No

Explanation to the above table:

HRR_{av}: average heat release rate

THR: total heat release (over the whole test duration)

SPR_{av}: average smoke production rate

TSP: total smoke production

FIGRA: FIGRA-Index as the maximum of the quotient of HRR_{av} / t

THR_{600s}: total heat release in the first 600 seconds after start of flaming

SMOGRA: SMOGRA-Index as maximum of the quotient of SPR_{av} / t

TSP_{600s}: total smoke production in the first 600 seconds after start of flaming

LFS: lateral flame spread Flammenausbreitung

FDP_{≤10s}: burning droplets/particles

FDP_{>10s}: burning droplets/particles with burning going on for more than 10 seconds

t: time from the beginning of the flaming by the main burner

Picture of specimen 1 before and after the test



Information: The appearance of specimen 1 is representative for the appearance of specimen 2 and 3.

Observations during the tests (Time from start of the test $t = 0$ s):

Specimen no. 1:

No ignition was observed

Specimen no. 2:

No ignition was observed

Specimen no. 3:

No ignition was observed

3. Special remarks

3.1 The test result is only valid for the product described in clause 1.

3.2 The test result only relate to the behaviour of the specimens of one building product under special test conditions during the test; it is not the only criteria for the evaluation of the potential fire risk of the building product when used.

This test report is issued additionally to the test report written in German language with the same report number. This test report is only valid in combination with the test report in German language. In case of doubt the German version is solely valid.

Erwitte, 2 July 2012

On behalf



Dipl.-Ing. Rademacher
Head of the testing body

Date of issue of this English version: 24 July 2012

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