



TEST REPORT NR. 14293

As a basis for a general report for the building and housing inspection

Valid until 2015-02-09

Sponsor

THERMAFLEX INT. HOLDING B.V.
Veerweg 1
NL-5145 NS WALWIJK
THE NETHERLANDS

Date of order: 2010-12-01
Date of sampling: Dec. 2009
Arrival of the samples: 2010-12-12
Date of test : 2010-01-07

Order

"Kleinbrenner"-test (Building material class B2) according to DIN 4102 - Part 1 (May 1998)

Material and Commercial name

Piping insulation "Flexalen 600 40A16"

Regulations concerning the test report

DIN 4102 - Part 1 (May 1998)

Result of the tests

The material has met the demands for normally ignitable building materials.

Ing. F. DUTRIEUE
Project Manager

Gent, 31 AUG. 2010

Prof. dr. ir. P. VANDEVELDE
Director

This report contains 3 pages

DIN 4102 teil 1 WG 1E

This document is the original version of this test report and is written in English.

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1. IDENTIFICATION OF THE PRODUCT

Description by the sponsor: "Flexalen 600 40A16"

Characteristics / Description of the material:

Single coil insulation pipe consisting of a black-metallic LDPE inner foam layer (density : $35 \pm 5 \text{ kg/m}^3$, wall thickness $\pm 11 \text{ mm}$) with a black HDPE foil (Density : 950 kg/m^3 ; thickness : 0,4 mm) surface film.

Insulation pipe	Nominal values (*)	Measured values (**)
Outside diameter (mm)	40	40,11
Inner diameter (mm)	18	19,69

(*) based on the information of the sponsor.

(**) values verified by the laboratory.

2. TEST RESULTS

2.1. Test method

The test is carried out in accordance with the prescriptions of the German Standard DIN 4102 - Teil 1 (edition may 1998), §6.2, once with edge exposure and once with surface exposure (5 samples each).

2.2. Test Results

2.2.1 Edge exposure

Test Nr.	1	2	3	4	5
Ignition (s)	4	4	4	4	4
Reaching the test-mark (s)	No	No	No	No	No
Self-extinction (s)	No	No	No	No	No
Maximum Flame height within the first 20s (cm)	6	6	7	7	8,5
Smoke development	Yes	Yes	Yes	Yes	Yes
Time of flaming droplets (s)	No	No	No	No	No

Test Nr.	1	2	3	4	5
Ignition (s)	4	4	4	4	4
Reaching the test-mark (s)	No	No	No	No	No
Self-extinction (s)	No	No	No	No	No
Maximum Flame height within the first 20s (cm)	2,5	3	2,5	2,5	3
Smoke development	No	No	No	No	No
Time of flaming droplets (s)	No	No	No	No	No

3. Assessment

- 3.1 The material, under the conditions of the test, meets the requirements of DIN 4102 - Teil 1 (may 1998) - §6.2. and can thus be classified as B2 (normalentflammbar).
- 3.2 Following DIN 4102 - Teil 1, §6.2.5, the material is considered as "nicht brennend abtropfend" (free from burning droplets).

4. Special remark

- 4.1 The classification B2 is valid only for the material, as described in §2 and §3. Small differences in the composition or thickness of the material or a combination with other materials may significantly affect the performance during the test and therefore invalidate the test results.
- 4.2 The material can thus be classified as DIN 4102 - B2.
- 4.3 The validity of the conclusion in §8 ends on 2015-02-11. At request this validity can be extended.
- 4.4 This test report does not replace the compulsory general approval of the building inspection. It serves as a basis for the prescribed use approval.