TNO Quality Services BV

Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek/Netherlands Organisation for Applied Scientific Research



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Report number T09.25024.02

Sponsor:

Contractor, manufacturer

Product name/family

: Unifloor Underlay Systems B.V.

: Product Family 2, see appendix I, page five.

Purpose:

Classification accordance EN 13501:2007.

Reaction to fire test, according to:

> EN ISO 11925-2:2002 Reaction to fire tests for building products, Part 2: Ignitability when subjected to direct impingement of flame (ISO 11925-2:2002).

> EN ISO 9239 reaction to fire tests for floor coverings, Part 1: Determination of the burning behaviour using a radiant heat source (ISO 9239-1:2002).

Results:

On pages two up to and including four.

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Date

17 February 2010

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TOS applies the Standard Conditions for research instructions given to TNO. The Standard Conditions will be sent on request



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Test results: EN-ISO 11925-2:2002 Small burner examination

Date of test

: October-November 2009

Conditioning time, climate

: min. 3 days, 23 ± 2 °C and 50 ± 5 %

Description of substrate

: 6 mm. Fibre cement board, 1800 kg/m³.

Flame application

: Surface.

Application time

: 15 seconds.

Assessment:

FAMILY 2 underlay flooring, did not fulfill the requirements EN ISO $11925-2^1$ (Fs ≤ 150 mm within 20 s.).

Based on the test results and evaluating the criteria for classification according to clause 8 of the EN-ISO 11925-2:2002 the examined **FAMILY 2** underlay flooring proved to be incapable of resisting, for a short period, a small flame attack without substantial flame spread.

If assessed according to Table 1 of the European classification standard EN 13501-1:2002 "Classification standard for building product and building elements" the examined product will be classified as follows: Class $\mathbf{F}_{\mathbf{fl}}$.

¹ Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.



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Test results: EN ISO 9239-1:2002. Radiant Panel test.

Date of testing

: October - November 2009

Conditioning time, climate

: min. 3 days, 23 ± 2 °C and 50 ± 5 % : 6 mm. Fibre cement board, 1800 kg/m^3 .

Description of substrate Sampling procedure

: by contractor.

Description of cleaning used

: none

Fixing method

: loose laid

Quality	Test specimen, orientation	CRF (kW/m²)	Smoke production (%.min)
Marathon Super	longitude	2.02	88
Marathon Dual	longitude	2.90	35
Redupax +	longitude	1.54	45

Table 1:A list of radiant panel test results (EN-ISO 9239-1) from qualities of the Family of Products 2.

Remarks: no flashing, transitory- or sustained flaming,

* specimen extinguished naturally

Classification criteria Class F_{FL} :

No performance

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Conclusion:

According to EN 13501:2007 the tested samples of the aforementioned Family 2 meets the requirements of Class F_{FL} .

Statements:

The test results only relate to the behaviour of the test specimens of the examined product under the particular conditions of the test in laboratory conditions; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use. The method might not be suitable if the product is exposed to much larger flames or heat radiant sources.

The validity of this report will expire five years after its issue or directly after alterations or modifications of the examined product(combination)(s) and/or the criteria. This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

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APPENDIX I: PRODUCT FAMILY 2, description of samples

Description of sample: Type of surface

: underlayment/underflooring

Quality	Total mass	Total thickness
	kg/m²	mm
Marathon Super	3.1	6
Marathon Dual	3.1	6
Redupax +	2.7	8