



Institut für Brandschutztechnik
und Sicherheitsforschung

TEST REPORT

on the fire behaviour of floor coverings
Determination of the burning behaviour using a radiant heat source in accordance
with EN ISO 9239, Part 1

Test Report No.: 317101603-1, Rev1-en

Date: 23.08.2018

This test report replaces test report no. 317101603-1 from 15.01.2018

Processor: A. Schmidt / ko

DD: 819

Client: Österreichische Vialit Gesellschaft m.b.H.
Josef-Reiter-Straße 78
A-5280 Braunau/Inn
AUSTRIA

Test object: asphalt "VIACORE"

Test samples received: 15.11.2017

Test date: 14.12.2017

Tester: Andreas Schmidt

Results: As of page 4 and test protocol

This report comprises: 12 pages with 11 photos and 1 test report (2 pages)

Extracts from this test report may only be published
with the written permission of IBS.



Basis of the inspection:

ÖNORM EN ISO 9239, Part 1:

"Reaction to fire tests for floorings - Part 1: Determination of the burning behaviour using a radiant heat source"

Edition: 01/11/2010

ÖNORM EN 13238:

"Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates"

Edition: 15/03/2010

EN ISO 13943:

"Fire safety – Vocabulary"

Edition: 01/06/2016

Test programme:

Only 3 tests will be carried out as there is no specific type of production (the construction product is the result of a mixing process).

The test series was carried out using test samples with an overall thickness of 60 mm (50 mm as the maximum thickness for the test sample plus a 10 mm thick carrier board).

Description of the test specimen according to details provided by the client:

Type designation:

Asphalt "VIACORE"

Dimensions

1050 mm x 230 mm x 60 mm (50 mm test sample plus 10 mm carrier board)

Sample structure:

- Homogeneous mixture consisting of
- 92.5% aggregate
- 7.5% binding agent

Mixture composition:

- Aggregate grain sizes: 92.5% weight by weight (see table for grading ranges)
- Binding agent (reactive): 7.5% weight by weight
- Carrier board: Fibre cement board pursuant to EN 13238 (10 mm)

Grading range as per client information

Width [mm]	Bandwidth [%]
0.063	2 - 13
0.5	5 - 35
2	10 – 72
4	40 – 85
8	40 – 100
11	70 – 100
16	80 – 100

Joint formation:

The standard does not require joints on account of the test sample's composition.

Mounting:

Asphalt “VIACORE” is applied directly to the fibre cement carrier board.

Test specimens received on:

15.11.2017

Test date:

14.12.2017

Test sample production:

Österreichische Vialit Gesellschaft m.b.H.

Installation of test samples in the test sample frame:

IBS Linz - Institut für Brandschutztechnik und Sicherheitsforschung Gesellschaft mbH

Acclimatisation prior to testing:

The test specimens were conditioned in accordance with EN 13238:2010 at a room temperature of 23 +/- 2 °C and a relative humidity level of 50 +/- 5 % during a defined period. Conditioning began on the day the sample was received and lasted for at least two weeks, whereby conditioning ended on the day the test was carried out.

Results:

Measurement value tables:

Burning distances	1	2	3	Mean value
Ignition of flooring	-	-	-	-
50 mm [min:sec]	-	-	-	-
100 mm [min:sec]	-	-	-	-
Flames extinguished [min:sec]	00:00	00:00	00:00	00:00
Flame spread [mm]	0	0	0	0

Burning distances	1	2	3	Mean value
Flame spread after 10 mins. [mm]	-	-	-	-
Flame spread after 20 mins. [mm]	-	-	-	-
Flame spread after 30 mins. [mm]	-	-	-	-

Derived burning characteristic	1	2	3	Mean value
Heat flux (HF-X): HF-10 [kW/m²]	>11	>11	>11	>11
HF-20 [kW/m²]	-	-	-	-
HF-30 [kW/m²]	-	-	-	-
Critical heat flux (CHF) [kW/m²]	>11	>11	>11	>11
Maximum smoke development [%]	1.4	1.8	1.4	1.5
Smoke development [%×min]	1.38	1.82	4.06	2.42

A detailed measurement value evaluation with corresponding diagrams pursuant to EN ISO 9239-1:2010, Para. 8, can be referenced from the enclosed test reports.

Test observations made during the fire tests:

- No ignition of the material was ascertained.
- There was merely some discolouration over a length of 15 mm in the burner range.
- Brief blister formation due to the thermal load on the surface caused by the radiant heat source.
- Crack formation around the centre of the test sample observed towards the end of the test.
- Smoke was fully extracted through the extraction system during all fire tests.

The results in hand alone cannot serve as a basis for a subsequent Euroclass classification. At least one additional test procedure must be carried out to enable an unambiguous classification in accordance with EN 13501-1:2007+A1:2009.

Furthermore, classification must take the form of a classification report.

The test results relate exclusively to the behaviour of the specimens of a construction product under the specific test conditions during the test; they should not be understood as the sole criterion for assessing the potential fire hazard of the construction product when in use.

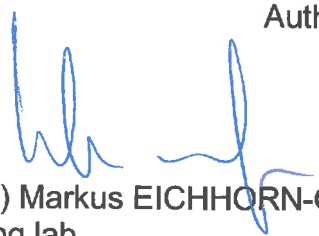
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UND SICHERHEITSFORSCHUNG GESELLSCHAFT M.B.H.
Akkreditierte Prüf-, Inspektions- und Zertifizierungsstelle**



Andreas SCHMIDT
Technician



Ing. Josef STOCKINGER
Authorised signatory



Dipl.-Ing. (FH) Markus EICHHORN-GRUBER, MBA
Head of testing lab

Photo documentation of radiant panel tests:



Photo 1: Test sample 1 installed in a sample holder prior to testing



Photo 2: Test sample 1 prior to testing



Photo 3: Test sample 1 during the test in the test chamber



Photo 4: Test sample 1 after testing



Photo 5: Test sample 2 prior to testing



Photo 6: Test sample 2 after testing



Photo 7: Test sample 3 prior to testing



Photo 8: Test sample 3 after testing

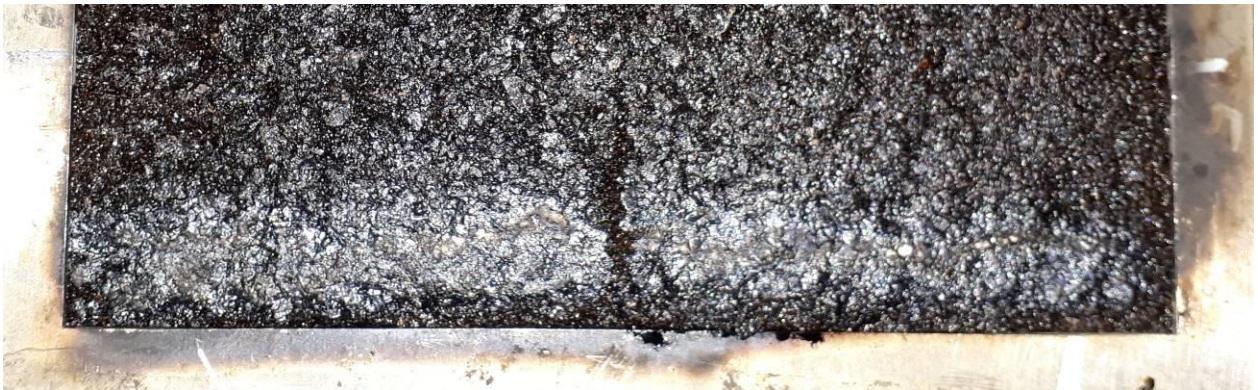


Photo 9: Test sample 1 / detailed view after testing



Photo 10: Test sample 2 / detailed view after testing



Photo 11: Test sample 3 / detailed view after testing



Prüfprotokoll **RADIANT PANEL TEST**

Auftraggeber:	Österreichische Vialit Gesellschaft m.b.H.
Aktnummer:	317101603
Prüfer:	Schmidt A.
Prüfdatum:	14.12.2017
Typenbezeichnung:	Asphalt "VIACORE" (neue Bezeichnung lt. Antrag v. 22.08.2018)
Gesamtdicke:	60 mm
Beschreibung des Probekörperaufbaus	50 mm Asphaltmischgut laut Herstellerbeschreibung 10 mm Faserzementplatte
Trägerplatte:	☒ Faserzement gem. EN 13238 ☐ Spanplatte gem. EN 13238
Montageart:	☒ verklebt Klebertype: Selbstverklebung durch Bindemittel ☐ schwimmend

Prüfergebnisse/Beobachtungen

		Versuch 1	Versuch 2	Versuch 3	Mittelwert
Orientierung:					
Brennstrecken					
Entzündung	[min]	00:00	00:00	00:00	00:00
50 mm	[min:s]	00:00	00:00	00:00	00:00
100 mm	[min:s]	00:00	00:00	00:00	00:00
150 mm	[min:s]	00:00	00:00	00:00	00:00
200 mm	[min:s]	00:00	00:00	00:00	00:00
250 mm	[min:s]	00:00	00:00	00:00	00:00
300 mm	[min:s]	00:00	00:00	00:00	00:00
350 mm	[min:s]	00:00	00:00	00:00	00:00
400 mm	[min:s]	00:00	00:00	00:00	00:00
450 mm	[min:s]	00:00	00:00	00:00	00:00
500 mm	[min:s]	00:00	00:00	00:00	00:00
550 mm	[min:s]	00:00	00:00	00:00	00:00
600 mm	[min:s]	00:00	00:00	00:00	00:00
650 mm	[min:s]	00:00	00:00	00:00	00:00
700 mm	[min:s]	00:00	00:00	00:00	00:00
750 mm	[min:s]	00:00	00:00	00:00	00:00
800 mm	[min:s]	00:00	00:00	00:00	00:00
850 mm	[min:s]	00:00	00:00	00:00	00:00
900 mm	[min:s]	00:00	00:00	00:00	00:00
950 mm	[min:s]	00:00	00:00	00:00	00:00
Verlöschen der Flammen	[min:s]	00:00	00:00	00:00	00:00
Flammenausbreitung	[mm]	0	0	0	0,0
Flammenausbreitung		Auf Grund keiner Entzündung des Materials keine Flammenausbreitung			
nach 10 min	[mm]	-	-	-	-
nach 20 min	[mm]	-	-	-	-
nach 30 min	[mm]	-	-	-	-

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Abgeleitete Brandcharakteristik

Wärmestrom (HF-X):

HF 10	[kW/m²]	-	-	-	-
HF 20	[kW/m²]	-	-	-	-
HF 30	[kW/m²]	-	-	-	-
Kritischer Wärmestrom CHF	[kW/m²]	>11	>11	>11	>11
Maximale Rauchentw.	[%]	1,4	1,8	1,4	1,5
Maximum erreicht nach	[min:s]	00:31	28:08	03:02	10:34
Rauchentwicklung	[% min]	1,38	1,82	4,06	2,42

mögliche Klassifizierung gem. EN 13501-1

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Versuchsbeobachtungen

