



Test report – Nittedal Torvindustri AS

Fire testing of *Nittedals Taktorv*® on *a substrate of EPS*

CEN/TS 1187:2012, Test 2

Author:
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Nittedals Taktorv® on a substrate of EPS



VERSION	DATE	
3	2023-02-23	
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CLIENT	CLIENT'S REF.	
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TEST OBJECT	TEST OBJECT RECEIVED	
Nittedals Taktorv® on a substrate of EPS	2022-12-13	
TEST PROGRAMME	TEST LOCATION	DATE OF TEST
CEN/TS 1187:2012, Test 2	RISE Fire Research Norway	2023-01-11

SUMMARY:

Fire tests were performed on *Nittedals Taktorv®* manufactured by Nittedal Torvindustri AS, using a substrate of EPS according to *CEN/TS 1187:2012 - Test methods for external fire exposure to roofs, Test 2: Method with burning brands and wind.*

Test results are given in section 4.

PREPARED BY	SIGNATURE	
Morten Daffinrud		
APPROVED BY	SIGNATURE	
Anne Steen-Hansen, Chief Scientist		
REPORT NO.	CLASSIFICATION	CLASSIFICATION THIS PAGE
130004-68A	Restricted	Restricted



History

VERSION	DATE	VERSION DESCRIPTION
1	2023-01-27	First version.
2	2023-02-03	Second version. Corrected product name.
3	2023-02-16	Third version. Corrected product name. Corrected measured density.

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1 Product description

1.1 Type of product

According to the client, the product is turf for use on roof.

1.2 Manufacturer / place of production

Nittedal Torvindustri AS, Vestre Solørveg 1350, 2266 Arneberg, Norway.

1.3 Sampling

The tested material was selected and delivered by the client. The material subjected for testing arrived RISE Fire Research 2022-11-30. It is not known to RISE Fire Research if the fire characteristics of the product received are representative of the fire characteristics of the average product.

1.4 Test specimens

In total 6 test specimens with dimensions 1000 mm × 400 mm × 70 mm were prepared for testing.

These were loosely placed on top of a substrate of EPS.

- Nittedals taktor®:
 - Measured density: 298 kg/m³.
- Substrate:
 - The product was tested on a substrate of EPS, density of (20 ± 5) kg/m³, thickness of (50 ± 10) mm.

2 Testing

Operator: Morten Daffinrud, Engineer

Conditioning of the test material: The specimens were conditioned at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) % until constant mass was obtained.

Number of single tests: 3 at air velocity 2 m/s and
3 at air velocity 4 m/s.

3 Remarks / Deviations

All tests were extinguished by operator after 15 minutes.

The turf was laid in a frame so that the turf layer was 70 mm thick, see Figure 1.



Figure 1. Frame with turf on top of EPS

4 Test results

Table 1 Results from testing of Nittedals Taktorv® on a substrate of EPS, according to CEN/TS 1187:2012, Test 2. **Wind velocity 2 m/s.**

Test no. (date of testing in parenthesis)	1 (11-01-23)	2 (11-01-23)	3 (11-01-23)	Average
Ignition of specimen [min:s]	No	No	No	-
Flames die out [min:s]	02:59*	03:28*	03:19*	03:15
Glow die out [min:s]	15:00**	15:00**	15:00**	-
Specimen behaviour during the test	Glowing	Glowing	Glowing	
Length of damaged area [mm]	340	345	310	332
Length of damaged area of substrate [mm]	0	0	0	0

*There was only flames in the crib.

**Glow die out were extinguished by operator after 15 min.

Table 2 Results from testing of Nittedals Taktorv®, on a substrate of EPS, according to CEN/TS 1187:2012, Test 2. **Wind velocity 4 m/s.**

Test no. (date of testing in parenthesis)	4 (11-01-23)	5 (11-01-23)	6 (11-01-23)	Average
Ignition of specimen [min:s]	No	No	No	
Flames die out [min:s]	03:12*	03:14*	03:27*	03:18
Glow die out [min:s]	15:00**	15:00**	15:00**	
Specimen behaviour during the test	Glowing	Glowing	Glowing	
Length of damaged area [mm]	380	350	365	365
Length of damaged area of substrate [mm]	0	0	0	0

* There was only flames in the crib.

**Glow die out were extinguished by operator after 15 min.

RISE Fire Research AS

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Main document

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