

Classification report for roof coverings exposed to external fire according to EN 13501-5

1 Introduction

This classification report defines the classification assigned to roof covering "Veg Tech Moss-Sedum" in accordance with the procedures given in EN 13501-5:2005.

This classification report replace SP classification report P800074A, dated February 21, 2008.

2 Description of the roof covering

2.1 General

The product "Veg Tech Moss-Sedum" is defined as a roof covering. Its classification is valid for the following end use application: roof covering

2.2 Product description

The product, "Veg Tech Moss-Sedum", is fully described below.

According to the client:

Roof covering called "Veg Tech Moss-Sedum", consisting of the layers described below.

Top layer called "Veg Tech Moss-Sedum", (Vegetation mat) consisting of a non-woven fabric of PP, area weight 100 g/m² bound to a three-dimensional reinforcement net of PA, area weight 320 g/m². The top layer reinforcement is filled with mineral substrate of sand, clay mineral, lava-cross and compost (organic content < 5 %). In the mineral substrate there are growing 5 different sedum plants and 4 different mosses. The top layer has a nominal thickness of 30 mm and a nominal area weight of 35 kg/m² (dry).

The top layer is combined with different type of draining layers

RISE Research Institutes of Sweden AB

Postal address	Office location	Phone / Fax / E-mail
Box 857	Brinellgatan 4	+46 10 516 50 00
SE-501 15 BORÅS	SE-504 62 BORÅS	+46 33 13 55 02
Sweden		info@ri.se

This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

3 Test reports

3.1 Test reports

This classification is based on the test report listed below:

Name of laboratory	Name of sponsor	Test report ref no	Accredited test method
SP	Veg Tech AB	P800074	ENV 1187, test 2

3.2 Test results

The test results listed below show the worst case as found in the test programme performed and reported according to the table above. The tests have been carried out on products covering both with and without different draining layers. One bottom layer for sloping roofs and one for plane roofs.

Test conditions: according to ENV 1187:2002/A1:2005, test 2.

Test pitch: 30°.

Substrate: board of expanded polystyrene (EPS), density $(20 \pm 5) \text{ kg/m}^3$, thickness $(50 \pm 10) \text{ mm}$.

Parameter	Criteria		Test Results					Compliance
	Mean [m]	Max [m]	Spe. 1 [m]	Spe. 2 [m]	Spe. 3 [m]	Mean [m]	Max [m]	
Damaged length at 2 m/s – roof covering	≤ 0.550	≤ 0.800	0	0	0	0	0	Yes
Damaged length at 2 m/s - substrate	≤ 0.550	≤ 0.800	-	-	-	-	-	Yes
Damaged length at 4 m/s – roof covering	≤ 0.550	≤ 0.800	0	0	0	0	0	Yes
Damaged length at 4 m/s - substrate	≤ 0.550	≤ 0.800	-	-	-	-	-	Yes

4. Classification and field of application

4.1 Reference

This classification has been carried out in accordance with EN 13501-5:2016.

4.2 Classification

The roof covering "Veg Tech Moss-Sedum" in relation to its external fire performance is classified:

B_{ROOF}(t2)

4.3 Field of application:

This classification is valid for the following conditions:

Top layer called "Veg Tech Moss-Sedum":

Nominal thickness: 30 mm.

Nominal area weight: 35 kg/m².

Range of substrates:

- Combustible and non-combustible substrates, having a density ≥ 15 kg/m³.

Hence the top layer can be combined with different types of draining layers conforming to the density requirements.

Range of pitches:

- All pitches.

5 Limitations

This classification document does not represent type approval or certification of the product.

RISE Research Institutes of Sweden AB **Safety - Fire Research Materials**

Performed by

Examined by

Henrik Fredriksson

Per Thureson