

**CLASSIFICATION OF
REACTION TO FIRE IN ACCORDANCE
WITH EN 13501-1:2018**

Sponsor	: RBS RAVAGO İNŞAAT YALITIM ÜRÜNLERİ A.Ş. Tatlısu Mah. Arif Ay Sok. No:6/2, Şerifali, İstanbul / TURKEY
Tested and prepared by	: EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş. Dilovası OSB Mah. Fırat Cad. No: 18 Dilovası, Kocaeli / TURKEY
Product name	: RAVATHERM ETICS RAVATHERM FFB RAVATHERM ROOF RAVATHERM VFB
Classification report No.	: ERA - 21 - 163
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1. INTRODUCTION

This classification report defines the classification assigned to “*RAVATHERM ETICS, RAVATHERM FFB, RAVATHERM ROOF, RAVATHERM VFB*” in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1. General:

RAVATHERM ETICS, RAVATHERM FFB, RAVATHERM ROOF, RAVATHERM VFB are defined as a “type of classified product”. Its classification is valid for the following end use application:

EN 13162:2012+A1:2015 - Thermal insulation products for buildings - Factory made mineral wool (MW) products - Specifications

2.2. Description:

RAVATHERM ETICS, RAVATHERM FFB, RAVATHERM ROOF, RAVATHERM VFB are fully described in the test reports in support of the classification listed in clause 3.

Manufactured plant: RBS RAVAGO İNŞAAT YALITIM ÜRÜNLERİ A.Ş.
Organize Sanayi Bölgesi 20. Cad. No: 54, Melikgazi, Kayseri / TURKEY

Tested product types:

Product Name	Surface type	Thickness (mm)	Density (kg/m ³)	Organic matter content (kg/m ³)
<i>RAVATHERM ETICS</i>	Unfaced	170	130	4,55
<i>RAVATHERM FFB</i>	Unfaced	50	110	3,85
<i>RAVATHERM ROOF</i>	Unfaced	30	185	7,4
<i>RAVATHERM VFB</i>	Unfaced	170	100	3,5

3. REPORTS AND RESULTS IN SUPPORT OF CLASSIFICATION

3.1. Reports

Name of laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş.	RBS RAVAGO İNŞAAT YALITIM ÜRÜNLERİ A.Ş.	FTST20340	EN ISO 1716:2018
		FTST20341	EN ISO 1716:2018
		FTST20342	EN ISO 1716:2018
		FTST20343	EN ISO 1716:2018
		FTST20344	EN ISO 11182:2010
		FTST20345	EN ISO 11182:2010
		FTST20346	EN ISO 11182:2010
		FTST20347	EN ISO 11182:2010

3.2. Results

Test method	Parameter	Number of test	Results	
			Continuous parameter mean	Compliance parameters
EN ISO 1716 ⁽¹⁾	PCS [MJ/kg]	4	1,19	(-)
EN ISO 1182 ⁽¹⁾	ΔT (°C)	5	15,6	(-)
	Δm (%)	5	4,66	(-)
	t_f (s)	5	(-)	(-)
EN ISO 1716 ⁽²⁾	PCS [MJ/kg]	4	0,89	(-)
EN ISO 1182 ⁽²⁾	ΔT (°C)	5	13,2	(-)
	Δm (%)	5	3,94	(-)
	t_f (s)	5	(-)	(-)
EN ISO 1716 ⁽³⁾	PCS [MJ/kg]	4	1,25	(-)
EN ISO 1182 ⁽³⁾	ΔT (°C)	5	19,9	(-)
	Δm (%)	5	5,01	(-)
	t_f (s)	5	(-)	(-)
EN ISO 1716 ⁽⁴⁾	PCS [MJ/kg]	4	0,89	(-)
EN ISO 1182 ⁽⁴⁾	ΔT (°C)	5	11,9	(-)
	Δm (%)	5	3,98	(-)
	t_f (s)	5	(-)	(-)
(-): Not applicable			(1): RAVATHERM ETICS (2): RAVATHERM FFB (3): RAVATHERM ROOF (4): RAVATHERM VFB	

EFFECTIS

Test method	Parameter	Parameter	Compliance parameters
EN ISO 1716 ⁽¹⁾	PCS [MJ/kg]	1,19	≤ 2,0 (A1)
EN ISO 1182 ⁽¹⁾	ΔT (°C) Δm (%) t_f (s)	15,6 4,66 (-)	≤ 30 (A1) ≤ 50 (A1) = 0 (A1)
EN ISO 1716 ⁽²⁾	PCS [MJ/kg]	0,89	≤ 2,0 (A1)
EN ISO 1182 ⁽²⁾	ΔT (°C) Δm (%) t_f (s)	13,2 3,94 -	≤ 30 (A1) ≤ 50 (A1) = 0 (A1)
EN ISO 1716 ⁽³⁾	PCS [MJ/kg]	1,25	≤ 2,0 (A1)
EN ISO 1182 ⁽³⁾	ΔT (°C) Δm (%) t_f (s)	19,9 5,01 -	≤ 30 (A1) ≤ 50 (A1) = 0 (A1)
EN ISO 1716 ⁽⁴⁾	PCS [MJ/kg]	0,89	≤ 2,0 (A1)
EN ISO 1182 ⁽⁴⁾	ΔT (°C) Δm (%) t_f (s)	11,9 3,98 -	≤ 30 (A1) ≤ 50 (A1) = 0 (A1)
(-): Not applicable		(1): RAVATHERM ETICS (2): RAVATHERM FFB (3): RAVATHERM ROOF (4): RAVATHERM VFB	

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. Reference of classification

This classification has been carried out in accordance with the clauses 11.8.2, 11.9.2 and 11.10.1 of EN 13501-1:2018

4.2. Classification

RAVATHERM ETICS, RAVATHERM FFB, RAVATHERM ROOF, RAVATHERM VFB, in relation to their reaction to fire behaviour are classified:

A1

The additional classification in relation to smoke production is:

not classified

The additional classification in relation to flaming droplets / particles is:

not classified

The format of the reaction to fire classification *RAVATHERM ETICS, RAVATHERM FFB, RAVATHERM ROOF, RAVATHERM VFB* are:

Fire behaviour		Smoke production			Flaming droplets	
A1	-	s	not classified	,	d	not classified

Reaction to fire classification: A1

4.3. Field of application

This classification is valid for the following product parameters:

Product Name	Surface type	Thickness (mm)	Density (kg/m ³)	Organic matter content (kg/m ³)
<i>RAVATHERM ETICS</i>	Unfaced	170	130	4,55
<i>RAVATHERM FFB</i>	Unfaced	50	110	3,85
<i>RAVATHERM ROOF</i>	Unfaced	30	185	7,4
<i>RAVATHERM VFB</i>	Unfaced	170	100	3,5

4.4. Extended field of application

Product Name	Surface type	Density [kg/m ³]	Thickness [mm]	Organik matter content [kg/m ³]
<i>UNFACED STONEWOOL THERMAL INSULATION BOARDS</i>	Unfaced	Without limitation	Without limitation	≤ 7,4

5. LIMITATIONS

5.1. Restrictions

This classification report is valid provided that the technical specifications of product are within the limits in accordance with the field of application clause 4.3.

5.2. Warning

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

Signed:

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Tuğçe AKOĞLAN

Person in the charge of tests



Approved:

.....
Ali BAYRAKTAR

Laboratory Manager