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## Evaluation Report of

**ETA-16/0161**  
of 20/09/2022

### Technical Assessment Body issuing the ETA:

Łukasiewicz Research Network – Institute of Ceramics and Building Materials

### Trade name of the construction product

TYTAN ETICS EPS

### Product family to which the construction product belongs

04: External Thermal Insulation Composite Systems (ETICS) with renderings

### Manufacturer

SELENA FM SA  
Legnicka 48A  
54-202 Wrocław, POLAND  
[www.selena.com](http://www.selena.com)

### Manufacturing plants

Plant 1, Plant 2, Plant 3, Plant 4, Plant 5,  
Plant 6

### This Evaluation Report contains

19 pages including 1 Annex which form an integral part of this Report.

### This Evaluation Report replaces

Evaluation Report of ETA-16/0161, version 2,  
issued on 25/01/2018

## 1. Introduction

This Report describes the results of tests and verifications that have been performed to document the performance of the TYTAN ETICS EPS External Thermal Insulation Composite System with renderings, introduced by SELENA FM SA, in accordance with the Basic Works Requirements, as specified in chapter 2 of the EAD 040083-00-0404 “External Thermal Insulation Composite Systems (ETICS) with renderings”, edition of January 2019 and hereinafter referred to as EAD 040083-00-0404.

All information on the components, product as well as the factory production control are deposited at Łukasiewicz Research Network – Institute of Ceramics and Building Materials TAB. The data included in this Report is a part of the test reports listed in Annex No 1.

This Evaluation Report covers the tests to version 2 of ETA-16/0161 (issued on 25/01/2018), and the tests performed within amendment process.

## 2. Description of the TYTAN ETICS EPS

The components of TYTAN ETICS EPS are described in Table 1 of the accompanying version of ETA. The ETA-applicant SELENA FM SA is a producer of all components except EPS insulation products, glass fibre meshes, anchors and ancillary materials.

According to the statement of ETA-applicant the following components of TYTAN ETICS EPS have identical recipe:

- Tytan IS 11 = Tytan IS 12;
- Tytan STYRO PRO IS 13 E= Tytan IS 13;
- Tytan IS 21 = Tytan IS 22 = Tytan IS 23;
- Tytan IS 51 = Tytan IS 51N;
- Tytan IS 56 = Tytan IS 56N;
- Tytan IS 55 = Tytan IS 55N;
- Tytan IS 52 = Tytan IS 52N;
- Tytan IS 53 = Tytan IS 53N.

**Above information must be treated as strictly confidential!**

### 3. Results and assessment of performance

#### 3.1. Safety in case of fire (BWR 2)

##### 3.1.1. Reaction to fire

##### 3.1.1.1. Reaction to fire of ETICS

The reaction to fire was tested in compliance with Annex B to EAD 040083-00-0404 (according to EN ISO 1716, EN ISO 11925-2 and EN 13823) and then classified according to EN 13501-1.

Configuration of TYTAN ETICS EPS for SBI test (Tab. 1) was chosen on the basis of heat of combustion and components combination envisaged by the manufacturer. The results of reaction to fire are given in Table 2.

Table 1.

Configuration of TYTAN ETICS EPS		
Adhesive	Tytan IS 13	
Insulation product	EPS boards according to EN 13163 Density: 20,0 kg/m <sup>3</sup> , Class E Thickness: 180 mm for EN 13823, 50 mm for EN ISO 11925-2	
Base coat	Tytan IS 21 (PCS: 0,36 MJ/kg)	
Reinforcement	TYTAN IS 165 (EUROWEK LUX) (PCS: 9,48 MJ/kg)	
Key coat	Tytan IS 41 (PCS: 6,29 MJ/kg)	
Finishing coat	Tytan IS 51, floated 1,5 mm (PCS: 2,19 MJ/kg)	Tytan IS 51, floated 2,5 mm (PCS: 2,19 MJ/kg)
Decorative coat	Farba elewacyjna silikonowa Tytan IS 74 (PCS: 3,95 MJ/kg)	

Table 2.

Testing procedure	Parameter	Average value	
		Tytan IS 51, floated 1,5 mm + Farba elewacyjna silikatowa Tytan IS 74	Tytan IS 51, floated 2,5 mm + Farba elewacyjna silikatowa Tytan IS 74
EN 13823	FIGRA <sub>0,2 MJ</sub> (W/s)	55,55	48,77
	FIGRA <sub>0,4 MJ</sub> (W/s)	54,10	49,28
	THR <sub>600s</sub> (MJ)	2,34	2,37
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	4,40	4,64
	TSP <sub>600s</sub> (m <sup>2</sup> )	42,38	50,71
	LFS < edge of the sample	yes	yes
	Flaming droplets	no	no
EN ISO 11925-2	Fs ≤ 150 mm in 60 s	yes	yes
	no inflammation of filter paper	yes	yes
Class acc. to EN 13501-1	<b>B-s2, d0</b>		

### 3.1.1.2. Reaction to fire of the thermal insulation material

See Annex No 1 of ETA

### 3.1.1.3. Reaction to fire of PU foam adhesive

Table 3.

PU foam adhesive	Reaction to fire class acc. to EN 13501-1
Tytan IS 13	E
Tytan STYRO PRO IS 13 E	E

### 3.1.2. Façade fire performance

Performance was not assessed.

### 3.1.3. Propensity to undergo continuous smouldering of ETICS

Performance was not assessed.

### 3.2. Hygiene, health and environment (BWR 3)

#### 3.2.1. Content, emission and/or release of dangerous substances – leachable substances

Performance was not assessed.

#### 3.2.2. Water absorption

##### 3.2.2.1. Water absorption of the base coat and the rendering system

The tests were performed according to clause 2.2.5.1 of EAD 040083-00-0404. Results are presented in Table 4.

Table 4.

		Average water absorption (kg/m <sup>2</sup> ) after	
		1 hour	24 hours
Base coat Tytan IS 21		0,06	0,35
Rendering system:  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 54, floated 2,5 mm	0,05	0,32
	Tytan IS 51, floated 2,5 mm	0,04	0,31
	Tytan IS 56, 1,5 mm	0,07	0,33
	Tytan IS 55, floated 2,5 mm	0,23	0,48
	Tytan IS 52, floated 2,5 mm	0,02	0,28
	Tytan IS 53, floated 2,5 mm	0,02	0,23

##### 3.2.3. Water absorption of the thermal insulation product

See Annex No 1 of ETA

### 3.2.4. Water-tightness of the ETICS: Hygrothermal behaviour

The tests were performed according to clause 2.2.6 of EAD 040083-00-0404. Compositions of the tested rigs prepared by the manufacturer are given in Table 5.

Table 5.

	Rig
Insulation product	EPS boards acc. to EN 13163, TR100
Base coat	Tytan IS 21
Glass fibre mesh	R 117 A101
Key coat	Tytan IS 41
Finishing coat	Tytan IS 54, floated 1,5 mm
	Tytan IS 51, ribbed 1,5 mm
	Tytan IS 52, ribbed 1,5 mm
	Tytan IS 53, ribbed 1,5 mm

None of the following defects occurred during and after the testing:

- blistering or peeling of any finishing coat;
- failure or cracking associated with joints between thermal insulation product boards;
- detachment of the rendering system;
- cracking allowing water penetration to the thermal insulation layer.

### 3.2.5. Water-tightness: Freeze-thaw behaviour

Water absorption of rendering systems after 24 hours was lower than 0,5 kg/m<sup>2</sup> (Tab. 4) therefore TYTAN ETICS EPS can be considered as freeze/thaw resistant without any further testing (EAD 040083-00-0404, clause 2.2.7).

### 3.2.6. Impact resistance tested on the rig

The tests were performed on the rig after heat-rain and heat-cold cycles according to clause 2.2.8 of EAD 040083-00-0404. Obtained categories are presented in Table 6.

Table 6.

		Hard body impact		
		Impact energy 3 J	Impact energy 10 J	Impact resistance category
Single layer of standard mesh R 117 A101		Impact diameter (mm) / damages		
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 54, floated 1,5 mm	20 / cracks reaching the thermal insulation product	30 / cracks reaching the thermal insulation product	III
	Tytan IS 51, ribbed 1,5 mm	30 / superficial damages without cracks formation	40 / cracks without reaching the thermal insulation product	II
	Tytan IS 52, ribbed 1,5 mm	0 / no damages	50 / cracks without reaching the thermal insulation product	II
	Tytan IS 53, ribbed 1,5 mm	0 / no damages	45 / cracks without reaching the thermal insulation product	II

### 3.2.7. Impact resistance not tested on the rig

The tests were performed out of rig on small samples according to clause 2.2.8 of EAD 040083-00-0404. Obtained categories are presented in Tables 7 and 8.

Table 7.

		Hard body impact		
		Impact energy 3 J	Impact energy 10 J	Impact resistance category
<b>Single layer of standard mesh R 117 A101</b>		Impact diameter (mm) / damages		
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 56, 1,0 mm	0 / no damages	25 / cracks without reaching the thermal insulation product	II

Table 8.

		Hard body impact		
		Impact energy 3 J	Impact energy 10 J	Impact resistance category
<b>Single layer of standard mesh TYTAN IS 165</b>		Impact diameter (mm) / damages		
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 55, ribbed 1,5 mm	3 / no damages	21 / cracks without reaching the thermal insulation product	II

### 3.2.8. Water vapour permeability

#### 3.2.8.1. Water vapour permeability of the rendering system (equivalent air thickness $s_d$ )

The water vapour permeability was tested according to clause 2.2.9.1 of EAD 040083-00-0404. The results are given in Table 9.

Table 9.

		Equivalent air thickness $s_d$ (m)
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 54, floated 2,5 mm + Farba elewacyjna silikonowa Tytan IS 73 + Farba elewacyjna silikatowa Tytan IS 74 <i>thickness of rendering: 7,7 mm</i>	0,15 0,12
	Tytan IS 51, floated 2,5 mm + Farba elewacyjna silikonowa Tytan IS 73 <i>thickness of rendering: 7,7 mm</i>	0,18
	Tytan IS 56*, 1,5 mm <i>thickness of rendering: 6,5 mm</i>	0,22
	Tytan IS 55, floated 2,5 mm + Farba elewacyjna silikonowa Tytan IS 73 <i>thickness of rendering: 7,7 mm</i>	0,22
	Tytan IS 52, floated 2,5 mm + Farba elewacyjna silikonowa Tytan IS 73 <i>thickness of rendering: 7,7 mm</i>	0,21
	Tytan IS 53, floated 2,5 mm + Farba elewacyjna silikonowa Tytan IS 73 <i>thickness of rendering: 7,7 mm</i>	0,18

\*decorative coat not used

#### 3.2.8.2. Water vapour permeability of the thermal insulation product (water-vapour resistance factor)

See Annex No 1 of ETA

### 3.3. Safety and accessibility in use (BWR 4)

#### 3.3.1. Bond strength

##### 3.3.1.1. Bond strength between the base coat and the thermal insulation product

The test was performed in accordance with clause 2.2.11.1 of EAD 040083-00-0404. The results are presented in Table 10.

Table 10.

		Bond strength (kPa)	
		mean	min.
Tytan IS 21	initial state	80*	79
	hygrothermal cycles (from the rig)	127*	110
	freeze-thaw cycles	test not required	

\*cohesive rupture in insulation

##### 3.3.1.2. Bond strength between the adhesive and the substrate

The tests were carried out according to clause 2.2.11.2 of EAD 040083-00-0404. The results are given in Table 11.

Table 11.

		Bond strength (kPa)	
		mean	min.
Tytan IS 11**	initial state	406*	375
	48 h immersion in water + 2 hours 23°C/50% RH	425*	331
	48 h immersion in water + 7 days 23°C/50% RH	529*	420
Tytan IS 21**	initial state	493*	429
	48 h immersion in water + 2 hours 23°C/50% RH	374*	320
	48 h immersion in water + 7 days 23°C/50% RH	823*	652

\*adhesive rupture; \*\*thickness of adhesive – about 3 mm

### 3.3.1.3. Bond strength between adhesive and insulation product

The tests were carried out according to clause 2.2.11.3 of EAD 040083-00-0404. The results are given in Table 12.

Table 12.

		Bond strength (kPa)	
		mean	min.
Tytan IS 11 <sup>***</sup>	initial state	81*	80
	48 h immersion in water + 2 hours 23°C/50% RH	61**	44
	48 h immersion in water + 7 days 23°C/50% RH	82*	80
Tytan IS 21 <sup>***</sup>	initial state	110**	78
	48 h immersion in water + 2 hours 23°C/50% RH	85**	73
	48 h immersion in water + 7 days 23°C/50% RH	126*	98

\*cohesive rupture in insulation; \*\*adhesive rupture; \*\*\* thickness of adhesive – about 3 mm

### 3.3.1.4. Bond strength of foam adhesive

The tests were performed in accordance with method presented in clause 2.2.11.4 of EAD 040083-00-0404. The results are presented in Table 13.

Table 13.

		Bond strength (kPa)		
		mean	min.	number of test results in range 60-80
Tytan IS 13	standard application conditions	113*	106	0
	modification of foam thickness (15 mm)	130*	119	0
	modification of open time (5 minutes)	107*	98	0
	modification of temperature (0 °C)	121*	112	0
	modification of temperature (35 °C)	111*	104	0
Tytan STYRO PRO IS 13 E	standard application conditions	133*	125	0
	modification of foam thickness (15 mm)	76*	70	1
	modification of open time (6 minutes)	152*	141	0
	modification of temperature (0 °C)	139*	114	0
	modification of temperature (30 °C)	101*	81	0

\*cohesive rupture in foam

### 3.3.2. Fixing strength (transverse displacement test)

Test not required because the ETICS fulfils the following criteria:  $E \cdot d < 50\,000\text{ N/mm}$ .

### 3.3.3. Wind load resistance of ETICS

The ETICS TYTAN ETICS EPS is not foreseen to be mechanically fixed in any way (neither using anchors, nor using profiles). Supplementary mechanical fixings are foreseen to be used only where necessary to provide stability until adhesive has dried and as an ancillary component without any contribution to wind-load resistance.

#### 3.3.3.1. Pull-through test of fixings

Not relevant

#### 3.3.3.2. Static foam block test

Not relevant

### 3.3.3.3. Dynamic wind uplift test

Not relevant

### 3.3.4. Tensile test perpendicular to the faces of thermal insulation product

See Annex No 1 of ETA

### 3.3.5. Shear strength and shear modulus of elasticity test of ETICS

See Annex No 1 of ETA

### 3.3.6. Render strip tensile test

Performance was not assessed.

### 3.3.7. Shear strength and shear modulus of foam adhesive

The tests were performed in accordance with method presented in clause 2.2.18 of EAD 040083-00-0404. The results are presented in Table 14 and 15.

Table 14.

	Shear strength (kPa)						
	1		2		3		mean
Tytan IS 13	112		109		97		106
	1	2	3	4	5	6	mean
Tytan STYRO PRO IS 13 E	78	77	74	79	79	81	78

Table 15.

	Shear modulus (MPa)						
	1		2		3		mean
Tytan IS 13	0,296		0,247		0,285		0,276
	1	2	3	4	5	6	mean
Tytan STYRO PRO IS 13 E	0,629	0,566	0,559	0,576	0,628	0,599	0,593

### 3.3.8. Post expansion behaviour of foam adhesive

The tests were performed in accordance with method presented in clause 2.2.19 of EAD 040083-00-0404. The results are presented in Table 16.

Table 16.

	<b>Expansion (mm) after</b> - initial thickness 8 mm		
	<b>time</b>	<b>mean</b>	<b>max</b>
Tytan IS 13	5 min.	15	15
	10 min.	16	16
	20 min.	16	16
	40 min.	16	16
	60 min.	16	16
	24 hours	16	16
Tytan STYRO PRO IS 13 E	5 min.	10	10
	10 min.	10	10
	20 min.	11	11
	40 min.	11	11
	60 min.	11	12
	24 hours	11	11

### 3.3.9. Bond strength after ageing

#### 3.3.9.1. Bond strength after ageing of finishing coat tested on the rig

The tests were carried out according to clause 2.2.20.1 of EAD 040083-00-0404. The results are given in Table 17.

Table 17.

		Bond strength after hydrothermal cycles (kN/m <sup>2</sup> )	
		mean	individual values
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 54, floated 1,5 mm	117*	118; 122; 100; 142; 101
	Tytan IS 51, ribbed 1,5 mm	152*	144; 126; 111; 105; 274
	Tytan IS 52, ribbed 1,5 mm	129*	128; 130; 121; 142; 122
	Tytan IS 53, ribbed 1,5 mm	125*	117; 151; 106; 145; 107

\*cohesive rupture in insulation

#### 3.3.9.2. Bond strength after ageing of finishing coat not tested on the rig

The tests were carried out according to clause 2.2.20.2 of EAD 040083-00-0404. The results are given in Table 18.

Table 18.

		Bond strength after hydrothermal cycles (kN/m <sup>2</sup> )	
		mean	individual values
<b>Rendering system:</b>  Base coat Tytan IS 21 + key coat + finishing coat indicated hereafter:	Tytan IS 56, 1,5 mm	142*	160; 150; 140; 130; 130
	Tytan IS 55, ribbed 1,5 mm	81*	80; 78; 85; 80; 82

\*cohesive rupture in insulation

### 3.3.10. Mechanical and physical characteristics of the mesh

#### 3.3.10.1. Tensile strength and elongation of the glass fibre mesh in the as-delivered state

The tests were carried out according to clause 2.2.21.1 of EAD 040083-00-0404. The results are given in Table 19.

Table 19.

	Average tensile strength in the as-delivered state (N/mm)		Average elongation in the as-delivered state (%)	
	warp	weft	warp	weft
TYTAN IS 150 A (HALICO A150)	44,6	44,2	4,78	4,50
SSA-1363-145	49,0	50,0	3,80	3,70
R 117 A101	45,0	47,0	3,70	4,20
122**	47,0	49,0	3,90	3,40
TYTAN IS 165 (EUROWEK LUX)	39,0	55,0	3,70	3,70
SSA-1363-160	43,0	45,0	3,60	3,90
TYTAN IS 165 A (HALICO A165)	43,2	45,1	4,83	4,81
122*	44,0	46,0	3,90	3,50

\*plant Slovakia; \*\*plant Macedonia

### 3.3.10.2. Tensile strength and elongation of the glass fibre mesh after ageing state

The tests were carried out according to clause 2.2.21.2 of EAD 040083-00-0404. The results are given in Table 20.

Table 20.

	Average tensile strength after ageing (N/mm)		Residual strength after ageing (%)		Average elongation after ageing (%)	
	warp	weft	warp	weft	warp	weft
TYTAN IS 150 A (HALICO A150)	25,9	27,5	58,1	62,2	2,66	2,77
SSA-1363-145	25,0	29,0	51,0	58,0	2,10	2,30
R 117 A101	23,0	28,0	51,1	59,6	2,10	2,40
122**	27,0	36,0	57,4	73,5	2,30	2,50
TYTAN IS 165 (EUROWEK LUX)	28,0	49,0	71,8	89,1	2,6	3,40
SSA-1363-160	26,0	29,0	60,5	64,4	2,30	2,30
TYTAN IS 165 A (HALICO A165)	37,8	37,0	87,5	82,0	3,86	3,56
122*	23,0	29,0	52,3	63,0	2,10	2,10

\*plant Slovakia; \*\*plant Macedonia

### 3.4. Protection against noise (BWR 5)

#### 3.4.1. Airborne sound insulation of ETICS

Performance was not assessed.

##### 3.4.1.1. Dynamic stiffness of the thermal insulation product

Performance was not assessed.

##### 3.4.1.2. Air flow resistance of the thermal insulation product

Performance was not assessed.

### 3.5. Energy economy and heat retention (BWR 6)

#### 3.5.1. Thermal resistance and thermal transmittance of ETICS

The additional thermal resistance provided by the ETICS ( $R_{ETICS}$ ) to the substrate was calculated according to clause 2.2.23 of EAD 040083-00-0404 on the basis of the thermal resistance of the thermal insulation product ( $R_{insulation}$ ) and from either the tabulated ( $R_{render}$ ) value of the render system [about 0,02 in  $(m^2 \cdot K)/W$ ]. The results are given in Table 21.

$$R_{ETICS} = R_{insulation} + R_{render}$$

as described in EN ISO 10456.

Table 21.

Thermal resistance $R_{ETICS}$ with EPS* thickness 50 mm [[ $m^2 \cdot K$ ]/W]	Thermal resistance $R_{ETICS}$ with EPS* thickness 420 mm [[ $m^2 \cdot K$ ]/W]
1,131	9,353

\*at maximum value of thermal conductivity 0,045 W/(m · K)

#### 3.5.2. Thermal resistance of the thermal insulation product

See Annex No 1 of ETA

### 3.6. Tests on components

Test methods specified in Annex A of EAD 040083-00-0404 were used for establishing of input data for the verification of constancy of performance of TYTAN ETICS EPS External Thermal Insulation Composite System with renderings and, where relevant, for the description of its components. The test results are deposited at Łukasiewicz Research Network – Institute of Ceramics and Building Materials TAB. The results may be sent to other TABs of EOTA only on request. In such case they are considered as strictly confidential

Krakow, 20.09.2022

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## Annex No 1: Technical documentation

- ETA application with accompanying statements, Selena Industrial Technologies Sp. z o.o. on behalf of SELENA FM SA
- TYTAN ETICS EPS instruction of use, Selena Industrial Technologies Sp. z o.o. on behalf of SELENA FM SA
- ETA 11/0048 of 11.01.2013, TZUS Prague
- Report on classification of reaction to fire No SG-131/16/N, version 4, Łukasiewicz Research Network – Institute of Ceramics and Building Materials, Krakow, August 2022
- Test reports No: 218/16/SG/N, 219/16/SG/N, 227/16/SG/N, 228/16/SG/N on reaction to fire, ICiMB/Division in Krakow, December 2016
- Reports on classification to fire PU No PK1-01-18-074-E-0, PAVUS, a.s., Praha, December 2018
- Test report No 060-033 335 on water absorption, TZUS Prague/Division in Brno, December 2010
- Test reports No: 208/16/SG and 312/16/SG on water absorption, ICiMB/Division in Krakow, March and April 2016
- Test reports No: 208/16/SG, 209/16/SG, 210/16/SG, 289/16/SG, 290/16/SG, 291/16/SG and 292/16/SG on water vapour permeability, ICiMB/Division in Krakow, March 2016
- Test report No 060-036451 on hygrothermal behaviour, TZUS Prague/Division in Brno, September 2012
- Test reports No: 060-033 335 and 060-036451 on impact resistance, TZUS Prague/Division in Brno, December 2010 and September 2012
- Test report No 207/16/SG on impact resistance, ICiMB/Division in Krakow, March 2016
- Test reports No: 060-033 335 and 060-036451 on bond strength, TZUS Prague/Division in Brno, December 2010 and September 2012
- Test reports No: 205/16/SG, 206/16/SG, 207/16/SG, 1128/16/SG on bond strength, ICiMB/Division in Krakow, March and December 2016
- Test report No N020-032439 of polyurethane foam adhesive, TZUS Prague/Division in Ceske Budejovice, February 2015
- Test reports No: LZ M00-06052/16/R44NZM and LZM01-06052/16/R44NZM of polyurethane foam adhesive ITB, Warsaw, December 2016
- Test report No 060-033375 on identification of TYTAN ETICS EPS components, TZUS Prague/ Division in Brno, January 2011
- Test reports No: 307/16/SG, 691/16/SK, 692/16/SK, 693/16/SK, 694/16/SK, 844/17/SK on identification of TYTAN ETICS EPS components, ICiMB/Division in Krakow, April 2016, May 2017
- Test report of glass fibre mesh HALICO A150 No 609/18/SG, ICiMB/Division in Krakow, June 2018
- Test report of glass fibre mesh HALICO A165 No 610/18/SG, ICiMB/Division in Krakow, June 2018
- European Technical Assessment for glass fibre meshes SSA-1363-145 and SSA-1363-160, ETA 16/0526, TZÚS, September 2021
- European Technical Assessment for glass fibre mesh R 117 A101, ETA 13/0392, TZÚS, April 2021
- European Technical Assessment for glass fibre mesh EUROWEK LUX, ETA 16/0765, TZUS, Prague, June 2017
- European Technical Assessment for glass fibre mesh 122, ETA 16/0546, TZUS, Prague, April 2020