

European Technical Assessment

RESEARCH NETWORK 
ŁUKASIEWICZ



**Institute of Ceramics
and Building
Materials**

European Technical Assessment

ETA-19/0342
of 18/11/2019

General Part

Technical Assessment Body issuing the European Technical Assessment:
ŁUKASIEWICZ – ICiMB

Trade name of the construction product	DRYVIT DRYSULATION PRO
Product family to which the construction product belongs	External Thermal Insulation Composite Systems (ETICS) with Rendering
Manufacturer	DRYVIT SYSTEMS USA (EUROPE) Sp. z o.o. Krże Duże 7 96-325 Radziejowice, POLAND
Manufacturing plant	DRYVIT SYSTEMS USA (EUROPE) Sp. z o.o. Krże Duże 7 96-325 Radziejowice, POLAND
This European Technical Assessment contains	20 pages including 2 Annexes which form an integral part of this assessment. Annex No 3 Control Plan contains confidential information and is not included in the European Technical Assessment when that assessment is publicly disseminated.
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	ETAG 004 used as EAD, 2013

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Specific parts

1. Technical description of the product

This product DRYVIT DRYSULATION PRO is an ETICS (External Thermal Insulation Composite System with Rendering) - a kit comprising components which are factory-produced by the manufacturer or component suppliers. The ETICS manufacturer is ultimately responsible for all components of the ETICS specified in this ETA.

The ETICS kit comprises a prefabricated insulation product of expanded polystyrene (EPS) to be bonded or mechanically fixed onto a wall. The method of fixing and the relevant components are specified in Table 1. The insulation product is faced with a rendering system consisting of one or more layers (site applied), one of which contains reinforcement. The rendering is applied directly to the insulating boards, without any air gap or disconnecting layer.

The ETICS may include special fittings (e.g. base profiles, corner profiles) to treat details of ETICS (connections, apertures, corners, parapets, sills). Assessment and performance of these components is not addressed in this ETA, however the ETICS manufacturer is responsible for adequate compatibility and performance within the ETICS when the components are delivered as a part of the kit.

Table 1.

Components		Coverage (kg/m ²)	Thickness (mm)
Bonded ETICS; fully or partially bonded with supplementary mechanical fixings. National application documents shall be taken into account.			
Insulation materials with associated methods of fixing	• Insulation product: Boards of expanded polystyrene (EPS) according to EN 13163 <i>Product characteristics - see Annex No 1</i>	-	20 to 400
	• Adhesives: - DRYHESIVE PLUS Cement based powder requiring addition of 0,22-0,24 l/kg of water - FIBERCOAT Cement based powder requiring addition of 0,22-0,24 l/kg of water - GENESIS DM PLUS Cement based powder requiring addition of 0,22-0,24 l/kg of water - PRIMUS M Cement based powder requiring addition of 0,22-0,24 l/kg of water	3,5 to 5,0 (powder) 3,5 to 8,0 (powder) 3,5 to 5,0 (powder) 3,5 to 5,0 (powder)	- - - -
	• Supplementary mechanical fixings: Plastic anchors covered by relevant ETA	-	-

Table 1. cont.

	Components	Coverage (kg/m ²)	Thickness (mm)
Base coat	<ul style="list-style-type: none"> - FIBERCOAT Cement based powder requiring addition of 0,22-0,24 l/kg of water 	3,0 to 8,0 (powder)	3,0 to 5,0
Reinforcement	<ul style="list-style-type: none"> • Standard glass fibre meshes applied in one or two layers <ul style="list-style-type: none"> - STANDARD PLUS 150 - STANDARD PLUS 160 - SSA-1363 F+ - STANDARD PLUS 200 • Reinforced glass fibre mesh applied with one of standard glass fibre meshes <ul style="list-style-type: none"> - PANZER 260 <p><i>Products characteristics - see Annex No 2</i></p>	- - - -	- - - -
Key coats	<ul style="list-style-type: none"> • COLOR PRIME PLUS Ready to use liquid to be used obligatory with acrylic (PMR, FD PMR, mosaic structure), silicone (TR), silicone-silicate (HYBRID) and siloxane (HDP) finishing coats • DEMANDIT Ready to use liquid to be used with finishing coats applied by pattern • WOOD PRIME Ready to use liquid to be used obligatory on mineral finishing coat DRYTEX WOOD together with WOOD GLAZE MATT or WOOD GLAZE decorative coats 	0,25 to 0,30 0,35 to 0,40 0,20 to 0,25	- - -
Finishing coats	<ul style="list-style-type: none"> • Mineral finishing coats DRYTEX Cement based powders requiring addition of 0,22-0,24 l/kg of water. <p>Sandblast structure - max. particles size: floated - 1,2 mm</p> <p>Sandpebble structure - max. particles size: floated - 1,6 mm</p> <p>Sandpebble 2 structure - max. particles size: floated - 2,0 mm</p> <p>Sandpebble 3 structure - max. particles size: floated - 3,0 mm</p> <p>Quarzputz structure - max. particles size: ribbed - 2,0 mm</p>	2,2 to 2,5 2,6 to 2,8 3,3 to 3,8 4,1 to 4,3 2,6 to 2,8	Regulated by particles size

Table 1. cont.

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coats	Quarzputz Fine structure - max. particles size: ribbed - 1,2 mm	1,1 to 1,3	Regulated by particles size
	Freestyle structure - max. particles size: ribbed - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	• Mineral finishing coat DRYTEX WOOD Cement based powder requiring addition of 0,22-0,24 l/kg of water. structure - max. particles size: floated - 0,5 mm	4,5 to 5,0	4,0 to 5,0
	• Mosaic structure finishing coats Ready to use pastes - acrylic binder.		
	Ameristone particles size: 0,8 to 2,5 mm	3,9 to 4,5	
	Ameristone T / TerraNeo particles size: 0,8 to 2,5 mm	3,0 to 3,5	
	Stonemist particles size: 0,6 to 0,8 mm	2,8 to 3,5	Regulated by particles size
	Stonemist T particles size: 0,6 to 0,8 mm	2,6 to 3,3	
	• Acrylic finishing coats PMR Ready to use pastes - acrylic binder.		
	Limestone PMR structure - max. particles size: ribbed - 0,6 mm	1,0 to 1,2	
	Freestyle PMR structure - max. particles size: floated - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	Sandblast PMR structure - max. particles size: floated - 1,2 mm	2,2 to 2,5	
	Sandpebble Fine PMR structure - max. particles size: floated - 1,2 mm	2,0 to 2,1	
	Sandpebble PMR structure - max. particles size: floated - 1,6 mm	2,6 to 2,8	Regulated by particles size
	Sandpebble 2 PMR structure - max. particles size: floated - 2,0 mm	3,3 to 3,8	
	Quarzputz PMR structure - max. particles size: ribbed - 2,0 mm	2,6 to 2,8	

Table 1. cont.

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coats	<ul style="list-style-type: none"> • Acrylic finishing coats FD PMR Ready to use pastes - acrylic binder. 		
	Freestyle FD PMR structure - max. particles size: floated - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	Sandblast FD PMR structure - max. particles size floated - 1,2 mm	2,2 to 2,5	
	Sandpebble Fine FD PMR structure - max. particles size: floated - 1,2 mm	2,0 to 2,1	
	Sandpebble FD PMR structure - max. particles size: floated - 1,6 mm	2,6 to 2,8	Regulated by particles size
	Quarzputz FD PMR structure - max. particles size: ribbed - 2,0 mm	2,6 to 2,8	
	<ul style="list-style-type: none"> • Silicone finishing coats TR Ready to use pastes - silicone and acrylic binder. 		
	Limestone TR structure - max. particles size: ribbed - 0,6 mm	1,0 to 1,2	
	Freestyle TR structure - max. particles size: floated - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	Sandblast TR structure - max. particles size: floated - 1,2 mm	2,2 to 2,5	
	Sandpebble Fine TR structure - max. particles size: floated - 1,2 mm	2,0 to 2,1	
	Sandpebble TR structure - max. particles size: floated - 1,6 mm	2,6 to 2,8	Regulated by particles size
	Sandpebble 2 TR structure - max. particles size: floated - 2,0 mm	3,3 to 3,8	
	Quarzputz TR structure - max. particles size: ribbed - 2,0 mm	2,6 to 2,8	

Table 1. cont.

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coats	<ul style="list-style-type: none"> • Siloxane finishing coats HDP Ready to use pastes - siloxane and acrylic binder. 		
	Limestone HDP structure - max. particles size: ribbed - 0,6 mm	1,0 to 1,2	Regulated by particles size
	Freestyle HDP structure - max. particles size: floated - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	Sandblast HDP structure - max. particles size: floated - 1,2 mm	2,2 to 2,5	
	Sandpebble Fine HDP structure - max. particles size: floated - 1,2 mm	2,0 to 2,1	
	Sandpebble HDP structure - max. particles size: floated - 1,6 mm	2,6 to 2,8	Regulated by particles size
	Quarzputz HDP structure - max. particles size: ribbed - 2,0 mm	2,6 to 2,8	
	<ul style="list-style-type: none"> • Silicone-silicate finishing coats HYBRID Ready to use pastes – silicate-silicone-acrylic binder. 		
	Limestone HYBRID structure - max. particles size: ribbed - 0,6 mm	1,0 to 1,2	
	Freestyle HYBRID structure - max. particles size: floated - 0,6 mm (into any shaping)	1,2 to 2,0	1,2 to 2,0
	Sandblast HYBRID structure - max. particles size: floated - 1,2 mm	2,2 to 2,5	
	Sandpebble Fine HYBRID structure - max. particles size: floated - 1,2 mm	2,0 to 2,1	
	Sandpebble HYBRID structure - max. particles size: floated - 1,5 mm	2,2 to 2,4	Regulated by particles size
	Sandpebble 2 HYBRID structure - max. particles size: floated - 2,0 mm	3,3 to 3,8	
	Quarzputz Fine HYBRID structure - max. particles size: ribbed - 1,2 mm	1,1 to 1,3	

Table 1. cont.

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coats	<ul style="list-style-type: none"> • Mosaic structure finishing coats applied by pattern Ready to use pastes - acrylic binder. Ameristone particles size: 0,8 to 2,5 mm Ameristone T / TerraNeo particles size: 0,8 to 2,5 mm Stonemist particles size: 0,6 to 0,8 mm Stonemist T particles size: 0,6 to 0,8 mm • Acrylic finishing coat applied by pattern Ready to use paste - acrylic binder. Custom Brick structure - max. particles size: floated - 0,6 mm 	 3,9 to 4,5 3,0 to 3,5 2,8 to 3,5 2,6 to 3,3 1,2 to 2,0	 Regulated by particles size 1,2 to 2,0
Decorative coats	<ul style="list-style-type: none"> • DEMANDIT Ready to use pigmented liquid to be used obligatory with mineral finishing coats DRYTEX • SILSTAR / SILSTAR PRO Ready to use pigmented liquid to be used obligatory with mineral finishing coats DRYTEX • HYDROPHOBIC Ready to use pigmented liquid to be used obligatory with mineral finishing coats DRYTEX • WOOD GLAZE Ready to use pigmented liquid to be used obligatory with mineral finishing coat DRYTEX WOOD • WOOD GLAZE MATT Ready to use pigmented liquid to be used obligatory with mineral finishing coat DRYTEX WOOD 	 0,35 to 0,40 0,35 to 0,40 0,35 to 0,40 0,10 to 0,20 0,10 to 0,20	 - - - - -
Ancillary materials	<ul style="list-style-type: none"> • Patterns Covered with glue cardboard forms for single use, ready to use to obtain brick or stone design effect, providing joint of 10 mm width and joints surface area less than 30% per 1 m² • According to ETAG 004 Remain under the manufacturer's responsibility 		

2. Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

This ETICS is intended for use as external insulation of buildings' walls. The walls are made of masonry (bricks, blocks, stones) or concrete (cast on site or as prefabricated panels).

The ETICS can be used on new or existing (retrofit) vertical walls. It can also be used on horizontal or inclined surfaces which are not exposed to precipitation.

The ETICS is made of non load-bearing construction elements. It does not contribute directly to the stability of the wall on which it is installed, but it can contribute to durability by providing enhanced protection from the effect of weathering.

The ETICS is not intended to ensure the airtightness of the building structure.

The provisions made in this European Technical Assessment are based on an assumed working life of the ETICS of at least 25 years, provided that the requirements for the packaging, transport, storage, installation as well as appropriate use, maintenance and repair are met. The indication given on the working life cannot be interpreted as a guarantee given by the manufacturer or the Technical Assessment Body, but should only be regarded as a means for choosing the appropriate products in relation to the expected, economically reasonable working life of the works.

Design, installation, maintenance and repair of ETICS shall be done in accordance with principles introduced in chapter 7 of ETAG 004, used as EAD, and shall be in conformity with Member States' legislation requirements.

The instructions regarding packaging, transport, storage and installation of ETICS are specified in the manufacturer's technical documentation.

3. Performance of the product and references to the methods used for its assessment

The performances of the kit as described in this chapter are valid provided that the components of the kit comply with Annexes No 1÷2.

3.1. Safety in case of fire (BWR 2)

3.1.1. Reaction to fire (ETAG 004: clause 5.1.2.1, EN 13501-1)

Table 2.

Configuration	Max. heat of combustion [MJ/kg]	Flame retardant content	Euroclass acc. to EN 13501-1
Adhesive	0,75	No flame retardant	B-s1, d0
EPS boards* <i>density ≤ 25 kg/m³</i>	-		
Base coat	0,67		
Glass fibre mesh - standard - reinforced	6,76 7,19		
Key coat	8,20		
Finishing coat	4,04		
Decorative coat	28,10		
*flame retardant content in quantity ensuring Euroclass E according to EN 13501-1			

Note: European reference fire scenario has not been laid down for facades. In some Member States, the classification of ETICS according to EN 13501-1 might not be sufficient for the use in facades. An additional assessment of ETICS according to national provisions might be necessary to comply with Member State regulations, until the existing European classification system has been completed.

3.2. Hygiene, health and environment (BWR 3)

3.2.1. Water absorption (ETAG 004: clause 5.1.3.1)

- Base coat FIBERCOAT:
 - Water absorption after 1 hour < 1 kg/m²;
 - Water absorption after 24 hours < 0,5 kg/m².
- Rendering systems: Table 3

Table 3.

		Water absorption after 24 hours	
		<0,5 kg/m ²	≥0,5 kg/m ²
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat (if used) + finishing coat indicated hereafter + decorative coat (if used):	Mineral finishing coats DRYTEX: + DEMANDIT	x	-
	+ SILSTAR / SILSTAR PRO	x	-
	+ HYDROPHOBIC	x	-
	Mineral finishing coat DRYTEX WOOD + WOOD PRIME: + WOOD GLAZE	x	-
	+ WOOD GLAZE MATT	x	-
	COLOR PRIME PLUS + Mosaic structure finishing coats	x	-
	COLOR PRIME PLUS + Acrylic finishing coats PMR	x	-
	COLOR PRIME PLUS + Acrylic finishing coats FD PMR	x	-
	COLOR PRIME PLUS + Silicone finishing coats TR	x	-
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat + finishing coat applied by pattern indicated hereafter:	COLOR PRIME PLUS + Siloxane finishing coats HDP	x	-
	COLOR PRIME PLUS + Silicone-silicate finishing coats HYBRID	x	-
	DEMANDIT + Mosaic structure finishing coats	x	-
	DEMANDIT + Custom Brick	x	-

3.2.2. Watertightness (ETAG 004: clause 5.1.3.2)

3.2.2.1. Hygrothermal behaviour (ETAG 004: clause 5.1.3.2.1)

Pass (without defects).

3.2.2.2. Freeze-thaw behaviour (ETAG 004: clause 5.1.3.2.2)

ETICS is frost resistant according to water absorption test.

3.2.3. Impact resistance (ETAG 004: clause 5.1.3.3)

Table 4.

		Single layer of standard mesh
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat (if used) + finishing coat indicated hereafter + decorative coat (if used):	Mineral finishing coats DRYTEX: + DEMANDIT + SILSTAR / SILSTAR PRO + HYDROPHOBIC	Category II Category II Category II
	Mineral finishing coat DRYTEX WOOD + WOOD PRIME: + WOOD GLAZE + WOOD GLAZE MATT	Category II Category II
	COLOR PRIME PLUS + Mosaic structure finishing coats	Category I
	COLOR PRIME PLUS + Acrylic finishing coats PMR	Category II
	COLOR PRIME PLUS + Acrylic finishing coats FD PMR	Category I
	COLOR PRIME PLUS + Silicone finishing coats TR	Category II
	COLOR PRIME PLUS + Siloxane finishing coats HDP	Category II
	COLOR PRIME PLUS + Silicone-silicate finishing coats HYBRID	Category I
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat + finishing coat applied by pattern indicated hereafter:	DEMANDIT + Mosaic structure finishing coats	Category II
	DEMANDIT + Custom Brick	Category III

Table 5.

		Double layer of standard mesh
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat (if used) + finishing coat indicated hereafter + decorative coat (if used):	Mineral finishing coats DRYTEX: + DEMANDIT + SILSTAR / SILSTAR PRO + HYDROPHOBIC	Category I Category I Category I
	Mineral finishing coat DRYTEX WOOD + WOOD PRIME: + WOOD GLAZE + WOOD GLAZE MATT	Category II Category II
	COLOR PRIME PLUS + Mosaic structure finishing coats	Category I
	COLOR PRIME PLUS + Acrylic finishing coats PMR	Category I
	COLOR PRIME PLUS + Acrylic finishing coats FD PMR	Category I
	COLOR PRIME PLUS + Silicone finishing coats TR	Category I
	COLOR PRIME PLUS + Siloxane finishing coats HDP	Category I
	COLOR PRIME PLUS + Silicone-silicate finishing coats HYBRID	Category I
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat + finishing coat applied by pattern indicated hereafter:	DEMANDIT + Mosaic structure finishing coats	Category I
	DEMANDIT + Custom Brick	Category I

3.2.4. Water vapour permeability (ETAG 004: clause 5.1.3.4)

Table 6.

		Equivalent air thickness s_d
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat (if used) + finishing coat indicated hereafter + decorative coat (if used):	Mineral finishing coats DRYTEX: + DEMANDIT + SILSTAR / SILSTAR PRO + HYDROPHOBIC	≤ 2 m, result: 0,3 m ≤ 2 m, result: 0,3 m ≤ 2 m, result: 0,3 m
	Mineral finishing coat DRYTEX WOOD + WOOD PRIME: + WOOD GLAZE + WOOD GLAZE MATT	≤ 2 m, result: 0,3 m ≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Mosaic structure finishing coats	≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Acrylic finishing coats PMR	≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Acrylic finishing coats FD PMR	≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Silicone finishing coats TR	≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Siloxane finishing coats HDP	≤ 2 m, result: 0,3 m
	COLOR PRIME PLUS + Silicone-silicate finishing coats HYBRID	≤ 2 m, result: 0,3 m
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat + finishing coat applied by pattern indicated hereafter:	DEMANDIT + Mosaic structure finishing coats	≤ 2 m, result: 0,4 m
	DEMANDIT + Custom Brick	≤ 2 m, result: 0,3 m

3.2.5. Release of dangerous substances (ETAG 004: clause 5.1.3.5, EOTA TR034)

No performance assessed.

Note: There may be requirements applicable to the ETICS falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Regulation (EU) No 305/2011, these requirements need to be complied with, when and where they apply.

3.3. Safety and accessibility in use (BWR 4)

3.3.1. Bond strength between base coat and insulation product (ETAG 004: clause 5.1.4.1.1)

Base coat FIBERCOAT:

- Initial state:
≥ 0,08 MPa
- After hygrothermal cycles:
≥ 0,08 MPa

3.3.2. Bond strength between adhesive and substrate (ETAG 004: clause 5.1.4.1.2)

Table 7.

	Initial state	48 h immersion in water + 2 hours 23°C/50% RH	48 h immersion in water + 7 days 23°C/50% RH
DRYHESIVE PLUS	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
FIBERCOAT	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
GENESIS DM PLUS	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
PRIMUS M	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa

3.3.3. Bond strength between adhesive and insulation product (ETAG 004: clause 5.1.4.1.3)

Table 8.

	Initial state	48 h immersion in water + 2 hours 23°C/50% RH	48 h immersion in water + 7 days 23°C/50% RH
DRYHESIVE PLUS	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa
FIBERCOAT	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa
GENESIS DM PLUS	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa
PRIMUS M	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa

3.3.4. Bond strength after ageing (ETAG 004: clause 5.1.7.1)

Table 9.

		After hygrothermal cycles
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat (if used) + finishing coat indicated hereafter + decorative coat (if used):	Mineral finishing coats DRYTEX: + DEMANDIT + SILSTAR / SILSTAR PRO + HYDROPHOBIC	≥ 0,08 MPa
	Mineral finishing coat DRYTEX WOOD + WOOD PRIME: + WOOD GLAZE + WOOD GLAZE MATT	
	COLOR PRIME PLUS + Mosaic structure finishing coats	
	COLOR PRIME PLUS + Acrylic finishing coats PMR	
	COLOR PRIME PLUS + Acrylic finishing coats FD PMR	
	COLOR PRIME PLUS + Silicone finishing coats TR	
	COLOR PRIME PLUS + Siloxane finishing coats HDP	
	COLOR PRIME PLUS + Silicone-silicate finishing coats HYBRID	
Rendering system: Base coat <u>FIBERCOAT</u> + relevant key coat + finishing coat applied by pattern indicated hereafter:	DEMANDIT + Mosaic structure finishing coats	≥ 0,08 MPa
	DEMANDIT + Custom Brick	

3.3.5. Render strip tensile test (ETAG 004: clause 5.5.4.1)

No performance assessed.

3.4. Protection against noise (BWR 5)

3.4.1. Airborne sound insulation (ETAG 004: clause 5.1.5.1)

No performance assessed.

3.5. Energy economy and heat retention (BWR 6)

3.5.1. Thermal resistance (ETAG 004: clause 5.1.6.1)

The thermal transmittance of the substrate wall covered by the ETICS is calculated in accordance with the standard EN ISO 6946:

$$U_c = U + \chi_p \cdot n$$

where:

$\chi_p \cdot n$ has only to be taken into account if it is greater than 0,04 W/(m²·K)

U_c : global (corrected) thermal transmittance of the covered wall (W/ (m²·K))

n : number of anchors (through insulation product) per 1 m²

χ_p : local influence of thermal bridge caused by an anchor. The values listed below can be taken into account if not specified in the anchor's ETA:

= 0,002 W/K for anchors with a stainless steel screw covered by plastic anchors and for anchors with an air gap at the head of the screw

($\chi_p \cdot n$ negligible for $n < 20$)

= 0,004 W/K for anchors with a galvanized steel screw with the head covered by a plastic material ($\chi_p \cdot n$ negligible for $n < 10$)

= negligible for anchors with plastic nails (reinforced or not with glass fibres)

U : thermal transmittance of the current part of the covered wall (excluding thermal bridges) (W/ (m²·K)) determined as follows:

$$U = \frac{1}{R_i + R_{render} + R_{substrate} + R_{se} + R_{si}}$$

where:

R_i : thermal resistance of the insulation product (according to declaration in reference to EN 13163) in (m²·K)/W

R_{render} : thermal resistance of the render (about 0,02 in (m²·K)/W or determined by test according to EN 12667 or EN 12664)

$R_{substrate}$: thermal resistance of the substrate of the building (concrete, brick) in (m²·K)/W

R_{se} : external superficial thermal resistance in (m²·K)/W

R_{si} : internal superficial thermal resistance in (m²·K)/W

The value of thermal resistance of each insulation product shall be given in the manufacturer's documentation along with the possible range of thicknesses. In addition, the point thermal conductivity of anchors shall be given when anchors are used in the ETICS.

3.6. Sustainable use of natural resources (BWR 7)

No performance assessed.

4. Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

According to the European Commission decision 97/556/EC amended by the European Commission decision 2001/596/EC, the AVCP systems (further described in Annex V to Regulation (EU) No 305/2011) 1 and 2+ apply.

Table 10.

Product(s)	Intended use(s)	Level(s) or class(es) (Reaction to fire)	System(s)
External thermal insulation composite systems/kits (ETICS) with rendering	in external wall subject to fire regulations	A1 ⁽¹⁾ , A2 ⁽¹⁾ , B ⁽¹⁾ , C ⁽¹⁾	1
		A1 ⁽²⁾ , A2 ⁽²⁾ , B ⁽²⁾ , C ⁽²⁾ , D, E, (A1 to E) ⁽³⁾ , F	2+
	in external wall not subject to fire regulations	any	2+

⁽¹⁾ Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)

⁽²⁾ Products/materials not covered by footnote ⁽¹⁾

⁽³⁾ Products/materials that do not require to be tested for reaction to fire (e.g. products/materials of Classes A1 according to Commission Decision 96/603/EC)

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

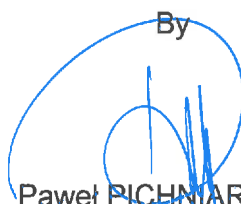
The manufacturer shall exercise permanent control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures. The production control system shall ensure performance constancy of the product covered by this European Technical Assessment.

The manufacturer may only use materials stated in the technical documentation of this European Technical Assessment. The factory production control shall be performed in accordance with the Control Plan which is a confidential part of the European Technical Assessment. The Control Plan was developed as a part of factory production control system.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

Issued in Krakow on 18.11.2019

By



Paweł PICHNARCZYK

Director of Research Network ŁUKASIEWICZ – Institute of Ceramics and Building Materials

Annexes:

Annex No 1 – Insulation products characteristics

Annex No 2 – Glass fibre meshes characteristics

Annex No 1 – Insulation products characteristics

		Boards of expanded polystyrene EPS
Reaction to fire / EN 13501-1		Euroclass – E max. density: 25 kg/m ³
Thermal resistance		Defined in the CE marking in reference to EN 13163 (m ² ·K)/W
Thickness / EN 823		± 1 mm [EN 13163 - T(1)]
Length / EN 822		± 2 mm [EN 13163 - L(2)]
Width / EN 822		± 2 mm [EN 13163 - W(2)]
Squareness / EN 824		± 5 mm/m [EN 13163 - S(5)]
Flatness / EN 825		5 mm [EN 13163 - P(5)]
Dimensional stability under specified conditions	EN 1603	± 0,2 % [EN 13163 - DS(N)2]
	EN 1604	2 % [EN 13163 - DS(70,-)2]
Bending strength / EN 12089		≥ 75 kPa [EN 13163 - BS75]
Water vapour permeability, diffusion factor (μ) / EN 12086 - EN 13163		20 to 40
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 80 kPa [EN 13163 - TR80]
Shear strength / EN 12090 - EN 13163		≥ 35 kPa

Annex No 2 – Glass fibre meshes characteristics

Mesh trade name	Description	Alkalis resistance	
		Residual resistance after ageing (N/mm)	Relative residual resistance: % (after ageing) of the strength in the as delivered state
STANDARD PLUS 150	Mass per unit area: 150 g/m ² Mesh size: 3,6 x 4,3 mm	≥ 20	≥ 50
STANDARD PLUS 160	Mass per unit area: 160 g/m ² Mesh size: 3,6 x 3,8 mm	≥ 20	≥ 50
SSA-1363 F+	Mass per unit area: 160 g/m ² Mesh size: 3,6 x 3,8 mm	≥ 20	≥ 50
STANDARD PLUS 200	Mass per unit area: 200 g/m ² Mesh size: 4,1 x 3,5 mm	≥ 20	≥ 50
PANZER 260	Mass per unit area: 260 g/m ² Mesh size: 6,9 x 6,8 mm	≥ 20	≥ 50

Annex No 3 to

**ETA-19/0342
of 18/11/2019**

Control Plan of DRYVIT DRYSULATION PRO

Control plan has been prepared by Technical Assessment Body: Research Network ŁUKASIEWICZ – Institute of Ceramics and Building Materials (ŁUKASIEWICZ – ICiMB TAB) in agreement with the manufacturer - DRYVIT SYSTEMS USA (EUROPE) Sp. z o.o. This document is a confidential part of the ETA-19/0342 and can be shared only with Notified Body participating in the procedure of assessment and verification of constancy of performance.

The manufacturer is obliged to notify ŁUKASIEWICZ – ICiMB TAB of every changes of the product, production process or the way of use of DRYVIT DRYSULATION PRO which may lead to errors in the control plan. ŁUKASIEWICZ – ICiMB TAB will decide if such changes affect the validity of the ETA-19/0342 thus validity of product CE marking and necessity of again technical assessment or changes in the ETA-19/0342. On request of ŁUKASIEWICZ – ICiMB TAB the manufacturer is obliged to present the results confirming that requirements of control plan are met.

CONTROL PLAN OF DRYVIT DRYSULATION PRO

Adhesive: DRYHESIVE PLUS			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density of fresh mortar	ETAG 004** cl. C.1.2.2	1600 ÷ 1900 kg/m ³	
Consistency	PN-85/B-04500	6,5 ÷ 8,5 cm	Once per production week
Bond strength to EPS after curing in dry condition	ETAG 004** cl. 5.1.4.1.3	≥ 0,08 MPa	At least once per 6 months
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 12 months
Water retention capability	ETAG 004** cl. C.1.2.1	≥ 95,0 %	
Bond strength to substrate after curing in dry condition	ETAG 004** cl. 5.1.4.1.2	≥ 0,25 MPa	At least once per 24 months

Adhesive: GENESIS DM PLUS / PRIMUS M			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density of fresh mortar	ETAG 004** cl. C.1.2.2	1600 ÷ 1900 kg/m ³	
Consistency	PN-85/B-04500	6,5 ÷ 8,5 cm	Once per production week
Bond strength to EPS after curing in dry condition	ETAG 004** cl. 5.1.4.1.3	≥ 0,08 MPa	At least once per 6 months
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 12 months
Water retention capability	ETAG 004** cl. C.1.2.1	≥ 95,0 %	
Bond strength to substrate after curing in dry condition	ETAG 004** cl. 5.1.4.1.2	≥ 0,25 MPa	At least once per 24 months

Adhesive / base coat: FIBERCOAT			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density of fresh mortar	ETAG 004** cl. C.1.2.2	1600 ÷ 1900 kg/m ³	
Consistency	PN-85/B-04500	6,5 ÷ 8,5 cm	Once per production week
Bond strength between base coat and EPS after curing in dry condition	ETAG 004** cl. 5.1.4.1.1	≥ 0,08 MPa	At least once per 6 months
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 12 months
Water retention capability	ETAG 004** cl. C.1.2.1	≥ 95,0 %	
Bond strength to substrate after curing in dry condition	ETAG 004** cl. 5.1.4.1.2	≥ 0,25 MPa	At least once per 24 months
Water absorption of base coat	ETAG 004** cl. 5.1.3.1	< 1 kg/m ² after 1 h ≤ 0,5 kg/m ² after 24 h	

Key coat: COLOR PRIME PLUS			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1450 ÷ 1700 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	55,0 ÷ 65,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	83,0 ÷ 86,5 % 53,5 ÷ 59,5 %	At least once per 24 months

Key coat / decorative coat: DEMANDIT			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1240 ÷ 1460 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	50,0 ÷ 54,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	71,0 ÷ 75,0 % 70,0 ÷ 75,0 %	At least once per 24 months

Key coat: WOOD PRIME			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1300 ÷ 1600 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	48,0 ÷ 58,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	81,0 ÷ 86,0 % 50,0 ÷ 55,0 %	At least once per 24 months

Mineral finishing coats DRYTEX: Sandblast DRYTEX, Sandpebble DRYTEX, Sandpebble 2 DRYTEX, Sandpebble 3 DRYTEX, Quarzputz DRYTEX, Quarzputz Fine DRYTEX			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density of fresh mortar	ETAG 004** cl. C.1.2.2	1600 ÷ 1900 kg/m ³	
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 24 months
Water absorption ¹⁾	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

¹⁾ Sandpebble 3 DRYTEX + DEMANDIT and Sandpebble 3 DRYTEX + SILSTAR and Sandpebble 3 DRYTEX + HYDROPHOBIC

Mineral finishing coat DRYTEX: Freestyle DRYTEX			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density of fresh mortar	ETAG 004** cl. C.1.2.2	1400 ÷ 1700 kg/m ³	
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Freestyle DRYTEX + DEMANDIT and Freestyle DRYTEX + SILSTAR and Freestyle DRYTEX + HYDROPHOBIC

Mineral finishing coat: DRYTEX WOOD			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	powder of uniform color without lumps and mechanical impurities	Every production lot
Density	ETAG 004** cl. C.1.1.1 (powders)	1600 ÷ 1900 kg/m ³	
Ash content at 450 °C	ETAG 004** cl. C.1.1.3	96,0 ÷ 99,0 %	At least once per 24 months
Water absorption ¹⁾	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	
Bond strength after ageing ²⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

^{1), 2)} DRYTEX WOOD + WOOD PRIME + WOOD GLAZE and DRYTEX WOOD + WOOD PRIME + WOOD GLAZE MATT

Mosaic structure finishing coats: Ameristone, Ameristone T / TerraNeo			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1520 ÷ 1870 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 86,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	89,0 ÷ 94,0 % 89,0 ÷ 93,0 %	At least once per 24 months
Water absorption ¹⁾	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

¹⁾ Ameristone

Mosaic structure finishing coats applied by pattern: Ameristone, Ameristone T / TerraNeo			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1520 ÷ 1870 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 86,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	89,0 ÷ 94,0 % 89,0 ÷ 93,0 %	At least once per 24 months
Water absorption ¹⁾	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

¹⁾ Ameristone

Mosaic structure finishing coats: Stonemist, Stonemist T			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1460 ÷ 1780 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 85,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	89,0 ÷ 93,0 % 89,0 ÷ 93,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Stonemist T

Mosaic structure finishing coats applied by pattern: Stonemist, Stonemist T			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1460 ÷ 1780 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 85,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	89,0 ÷ 93,0 % 89,0 ÷ 93,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Stonemist T

Acrylic finishing coat PMR: Sandpebble 2 PMR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	79,0 ÷ 85,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	87,0 ÷ 91,0 % 51,0 ÷ 57,0 %	At least once per 24 months
Water absorption	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

Acrylic finishing coats PMR: Limestone PMR, Freestyle PMR, Sandblast PMR, Sandpebble Fine PMR, Sandpebble PMR, Quarzputz PMR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 89,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	86,5 ÷ 93,5 % 75,0 ÷ 89,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Limestone PMR

Acrylic finishing coat FD PMR: Quarzputz FD PMR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1557 ÷ 1903 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	77,5 ÷ 89,8 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	83,7 ÷ 88,9 % 83,0 ÷ 88,2 %	At least once per 24 months
Water absorption	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

Acrylic finishing coats FD PMR: Freestyle FD PMR, Sandblast FD PMR, Sandpebble Fine FD PMR, Sandpebble FD PMR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	80,0 ÷ 87,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	85,0 ÷ 90,0 % 83,0 ÷ 89,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Freestyle FD PMR

Silicone finishing coat TR: Sandpebble 2 TR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	79,0 ÷ 85,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	87,0 ÷ 91,0 % 51,0 ÷ 57,0 %	At least once per 24 months
Water absorption	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

Silicone finishing coats TR: Limestone TR, Freestyle TR, Sandblast TR, Sandpebble Fine TR, Sandpebble TR, Quarzputz TR			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	81,0 ÷ 89,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	86,5 ÷ 93,5 % 75,0 ÷ 89,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Limestone TR

Siloxane finishing coat HDP: Quarzputz HDP			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1566 ÷ 1914 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	75,9 ÷ 87,9 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	88,4 ÷ 93,9 % 75,0 ÷ 79,6 %	At least once per 24 months
Water absorption	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

Siloxane finishing coats HDP: Limestone HDP, Freestyle HDP, Sandblast HDP, Sandpebble Fine HDP, Sandpebble HDP			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	77,0 ÷ 84,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	88,0 ÷ 93,0 % 73,0 ÷ 91,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Limestone HDP

Silicone-silicate finishing coats HYBRID: Sandpebble Fine HYBRID, Sandpebble HYBRID, Sandpebble 2 HYBRID			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	74,0 ÷ 81,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	87,0 ÷ 93,0 % 55,0 ÷ 62,0 %	At least once per 24 months
Water absorption ¹⁾	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	

¹⁾ Sandpebble 2 HYBRID

Silicone-silicate finishing coats HYBRID: Limestone HYBRID, Freestyle HYBRID, Sandblast HYBRID, Quarzputz Fine HYBRID			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1620 ÷ 1980 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	74,0 ÷ 81,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	87,0 ÷ 93,0 % 78,0 ÷ 89,0 %	At least once per 24 months
Bond strength after ageing ¹⁾	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

¹⁾ Limestone HYBRID

Acrylic finishing coat applied by pattern: Custom Brick			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous paste of uniform color, not foamy, without lumps and mechanical impurities	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1550 ÷ 1750 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	79,3 ÷ 84,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	87,0 ÷ 91,0 % 86,0 ÷ 92,0 %	At least once per 24 months
Water absorption	ETAG 004** cl. 5.1.3.1	< 0,5 kg/m ² after 24 h	
Bond strength after ageing	ETAG 004** cl. 5.1.7.1.2	≥ 0,08 MPa	

Decorative coat: SILSTAR / SILSTAR PRO			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1350 ÷ 1670 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	59,0 ÷ 63,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	82,0 ÷ 86,0 % 62,0 ÷ 74,0 %	At least once per 24 months

Decorative coat: HYDROPHOBIC			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1230 ÷ 1510 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	48,0 ÷ 52,0%	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	80,0 ÷ 84,0 % 79,1 ÷ 84,0 %	At least once per 24 months

Decorative coat: WOOD GLAZE			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1000 ÷ 1200 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	21,0 ÷ 25,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	0,1 ÷ 2,0 % 0,1 ÷ 4,0 %	At least once per 24 months

Decorative coat: WOOD GLAZE MATT			
Examination	Method	Requirement	Frequency of testing
Appearance	Quality control testing method No 01*	homogeneous liquid, can contain a filler	Every batch
Density	ETAG 004** cl. C.1.1.1 (pastes and liquids)	1000 ÷ 1200 kg/m ³	
Dry extract	ETAG 004** cl. C.1.1.2	23,0 ÷ 31,0 %	At least once per 6 months
Ash content - at 450 °C - at 900 °C	ETAG 004** cl. C.1.1.3	9,0 ÷ 13,0 % 8,0 ÷ 12,0 %	At least once per 24 months

Glass fibre meshes: all specified in Annex No 2 to ETA-19/0342			
Examination	Method	Requirement	Frequency of testing
Residual resistance after ageing	ETAG 004** cl. 5.6.7.1	≥ 20 N/mm	At least once per 24 months
Relative residual resistance after ageing		≥ 50 %	

DRYVIT DRYSULATION PRO			
Examination	Method	Requirement	Frequency of testing
Reaction to fire classification PN-EN 13501-1	ETAG 004** Annex D	B-s1, d0	At least once per 36 months

*Method included in the DRYVIT SYSTEMS USA (EUROPE) Sp. z o.o. factory production control system.

**ETAG 004 – Guideline for European Technical Approval used as European Assessment Document, actual version.

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