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European Technical Assessment

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GENERAL PART

**Organ za tehnično ocenjevanje, ki je izdal
ETA**

Technical Assessment Body issuing the ETA

Komercialno ime gradbenega proizvoda

Trade name of the construction product

Družina proizvoda

*Product family to which the construction product
belongs*

Proizvajalec

Manufacturer

Proizvodni obrat:

Manufacturing plant

Ta Evropska tehnična ocena vsebuje:

This European Technical Assessment contains

**Ta Evropska tehnična ocena je izdana na
podlagi Uredbe (EU) št. 305/2011 na osnovi**

*This European Technical Assessment is issued in
accordance with regulation (EU) No 305/2011, on
the basis of*

ZAG Ljubljana

JUBIZOL EPS

**04: Zunanji toplotnoizolacijski sestavljeni
sistemi z ometom, namenjeni za
izolacijo zunanjih zidov zgradb**

*04: External Thermal Insulation Composite
Systems with rendering for the use as external
insulation to the walls of buildings*

JUB d.o.o.

Dol pri Ljubljani 28

SI-1262 Dol pri Ljubljani

Slovenija

Plant 1

Plant 2

Plant 3

Plant 4

Plant 5

*53 strani vključno s 6-imi prilogami, ki so sestavni
del te ocene*

*53 pages including 6 annexes which form an integral part of
the document*

*Smernice za evropska tehnična soglasja
ETAG 004, izdaja februar 2013, ki se uporablja
kot EAD*

*Guideline for European Technical Assessment ETAG 004,
edition February 2013, used as EAD*

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II SPECIFIC PART

1 Technical description of the product

1.1 General

This product 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:

- **purely bonded,**
- **bonded with supplementary mechanical fittings or**
- **mechanically fixed with supplementary adhesive.**

The methods of fixing and the relevant components are specified in the table below. 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 panels, 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.

1.2 Composition of the kit

1.2.1 Composition of the ETICS

The ETICS comprises the following: adhesive or mechanical fixings (anchors), insulation core, base coat reinforced with glass fibre mesh, key coat applied on the base coat, finishing coat and ancillary materials. The definition of the product and description of the components are as follows:

	Components (see § 3.3, § 3.4 for further description, characteristics and performances of the components)	Coverage (kg/m ²)	Thickness (mm)
Insulation materials with associated methods of fixing	<p>Bonded (partially or fully) and mechanically fixed ETICS with anchors and supplementary adhesive (see § 3.4.4) for possible associations EPS/anchors)</p> <ul style="list-style-type: none"> • Insulation products (currently used EPS insulation) <ol style="list-style-type: none"> a) JUBIZOL EPS F – W, b) JUBIZOL EPS F – W 035, c) JUBIZOL EPS F – G0 SunStop, d) JUBIZOL EPS F Graphite – G, e) JUBIZOL EPS F –two layer insulate plate, f) JUBIZOL EPS F Strong - S0 premium, g) JUBIZOL EPS F Strong - S0 GRAPHITE, h) JUBHome WALL EPS system elements. <p>EPS-es denotated as a), b), c), d) and e) are coded as: EPS-EN 13163-T1-L2-W2-S2-P5-DS(N)2-DS(70,-)1-TR150-BS100. EPS-es denotated as f) and g) are coded as: EPS-EN 13163-L2-W2-T1-S2-P5-CS(10)100-TR150-BS150-DS(N)2-DS(70,-)1-WL(T)1-WD(V)1. EPS denotated as h) is coded as: EPS EN 13163-T(1)-L(2)-W(2)-S(2)-P(5)-BS200-DS(N)5-DS(70,-)1-TR400-CS(10)150-WL(T)3,5.</p> • Adhesive <ol style="list-style-type: none"> a) JUBIZOL ADHESIVE MORTAR– dry mix cement based adhesive requiring addition of ~20 % water b) JUBIZOL STRONG FIX – dry mix cement based adhesive requiring addition of ~20 % water c) JUBIZOL ADHESIVE – dry mix cement based adhesive requiring addition of ~20 % water d) JUBIZOL EPS ADHESIVE MORTAR – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water e) JUBIZOL MICROAIR FIX – dry mix cement based adhesive requiring addition of ~20 % water f) JUBIZOL ULTRALIGHT FIX - dry mix cement-based mortar with EPS beads, refined with polymer binder, requiring addition of ~24% water. g) JUBIZOL UNIWOOL ADHESIVE - dry mix cement-based mortar, refined with polymer binder, requiring addition of ~23% water • Anchors Ejotherm STR U***, STR U 2G*, SDM-T plus*, SDF-K plus*, Ejotherm NT-U*, Ejotherm NK-U*, Ejotherm NTK-U*, Ejotherm H1 Eco* ***, Ejotherm H3** ***, Hilti SX-FV*, SD-FV 8**, XI-FV*, D-FV * and D-FV T* Fischer Termoz 8U**, Termoz 8N**, Termoz KS8** Kosmatin UD PK ***, Leskovec PP**, PSK***, PSV***, PPV * ***, Ranit IsoFux NDT8LZ*, ND8LZ*, ND8LZ K*, NDS8Z*, NDM8Z*, NDS90Z*, NDM90Z*, IsoFux*, WKRET MET LFN-8*, MET LFM-8*, MET LFM-10*, MET LTX-10*, MET LMX-10*. 	/	to 300
		<ol style="list-style-type: none"> a) JUBIZOL ADHESIVE MORTAR – dry mix cement base coat powder requiring addition of 120 % water. It consists of aggregates, cement, dispersion powder, special additives. b) JUBIZOL STRONG FIX – dry mix cement base coat powder requiring addition of ~20 % water. It consists of aggregates, cement, dispersion powder, special additives. c) JUBIZOL Cement-free base coat – polymer based adhesive, paste form. It consists of aggregates, polymer, binders, special additives. d) JUBIZOL EPS ADHESIVE MORTAR – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water. JUBIZOL EPS adhesive mortar consists of aggregates, cement, polymer binders, special additives. e) JUBIZOL MICROAIR FIX – dry mix cement base coat powder requiring addition of ~20 % water. It consists of aggregates, cement, dispersion powder, special additives f) JUBIZOL ULTRALIGHT FIX - dry mix cement-based mortar with EPS beads, refined with polymer binder, requiring addition of ~24% water. g) JUBIZOL UNIWOOL ADHESIVE - dry mix cement-based mortar, refined with polymer binder, requiring addition of ~23% water 	3.5 - 5.0 (powder) 3.5 - 5.0 (powder) 3.5 - 5.0 (powder) 3.5 - 5.0 (powder) 3.5 - 5.0 (powder) 4,8 – 9,6 (powder) 4,2 – 8,4 (powder)
Base coat		4.2 – 8.4 (powder) 4.2 – 8.4 (powder) 3.8 – 4.5 (paste) 4.2 – 5.6 (powder) 4.2 – 5.6 (powder) 4,8 – 9,6 (powder) 4,2 – 8,4 (powder)	Max. dry: 6 Min. dry: 3 Max. dry: 6 Min. dry: 3 Max. dry: 3 Min. dry: 2,5 Max. dry: 4 Min. dry: 3 Max. dry: 4 Min. dry: 3 Max. dry: 6 Min. dry: 3 Max. dry: 6 Min. dry: 3

Glass fibres meshes	Standard meshes (glass fibres meshes with mesh size between 3.5 and 4.7 mm): <ul style="list-style-type: none"> • JUBIZOL glass fibre mesh - where JUBIZOL glass fibre mesh denote ETA-holder own designation 	/	/
Key coat	<ul style="list-style-type: none"> • JUBIZOL Unigrund – liquid, water based acrylic slurry primer intended as a key coat for all finishing coats (except mineral based finishing coats Mineral Trowelled Render, Mineral Smooth Render and Nivellin D + Revitalcolor AG) • Acryl emulsion - liquid, water based acrylic primer intended as a key coat for the acrylic and mineral based finishing coats • Acrycolor - liquid exterior acrylic waterborne facade paint as a key coat for the acrylic and mineral based finishing coats • SILICATEprimer - liquid, water based silicate primer intended as a key coat for the silicate based finishing coats • SILICONEprimer - liquid, water based silicone primer intended as a key coat for the silicone based finishing coats 	0.15 - 0.20 about 0.1 about 0.1 l / m ² about 0.1 l / m ² about 0.1 l / m ²	/ / / /

	Components (see § 3.3, § 3.4 for further description, characteristics and performances of the components)	Coverage (kg/m ²)	Thickness (mm)
Finishing coats	<ul style="list-style-type: none"> • JUBIZOL MINERAL finish T 2.0/2.5 – ready-mixed lime-cement based mortar requiring addition of water 20-23 %, based on lime, cement, aggregates, additives (in combination with all base coats except JUBIZOL Cement-free base coat) • JUBIZOL MINERAL finish S 1.5/2.0/2.5 – ready-mixed lime-cement based mortar requiring addition of water 20-23 %, based on lime, cement, aggregates, additives (in combination with all base coats except JUBIZOL Cement-free base coat) • Ready to use paste – JUBIZOL SILICATE finish T 2.0/2.5 - based on potassium silicate and water-based acrylic binder, aggregates, additives. (in combination with all base coats except JUBIZOL Cement-free base coat) • Ready to use paste – JUBIZOL SILICATE finish S 1.5/2.0/2.5 - based on potassium silicate and water-based acrylic binder, aggregates, additives (in combination with all base coats except JUBIZOL Cement-free base coat) • Ready to use paste – JUBIZOL SILICONE finish T 2.0/2.5 - based on silicone emulsion and water-based acrylic binder, aggregates, additives (in combination with all base coats) • Ready to use paste – JUBIZOL SILICONE finish S 1.5/2.0/2.5 - based on silicone emulsion and water-based acrylic binder, aggregates, additives (in combination with all base coats) • Ready to use paste – JUBIZOL ACRYL finish T 2.0/2.5 - based on water-based acrylic binder, aggregates, additives (in comb. with all base coats) • Ready to use paste – JUBIZOL ACRYL finish S /1.5/2.0/2.5 - based on water-based acrylic binder, aggregates, additives (in combination with all base coats) • NIVELIN D + façade paints* – ready-mixed polymer based mortar requiring addition of water ~ 30 %, based on polymer, lime, cement, aggregates, additives + liquid exterior micro reinforced acrylic waterborne anti-mildew paint (only in combination with JUBIZOL ADHESIVE MORTAR and JUBIZOL STRONG FIX) • Ready to use paste – JUBIZOL UNIXIL finish S 1,0/ 1.5/2.0/2.5 - based on water-based acrylic binders, mineral fillers, special additives (in combination with all base coats) • Ready to use paste – JUBIZOL UNIXIL Winter finish S 1,0/ 1.5/2.0/2.5 - based on water-based acrylic binders, mineral fillers, special additives (in combination with all base coats) • Ready to use paste – JUBIZOL UNIXIL finish T 2.0/2.5 - based on water-based acrylic binders, mineral fillers, special additives (in combination with all base coats) • Ready to use paste – JUBIZOL NANO finish S 1,5/2,0/2,5 - based on water-based silicone and acrylic binders, nano structures, mineral fillers and special additives (in combination with all base coats) 	2.6 to 3.1 (powder) 2.6 to 3.6 (powder) 2.5 to 3.2 (paste) 3.0 to 5.5 (paste) 2.8 to 3.5 (paste) 2.4 to 4.7 (paste) 2.5 to 3.2 (paste) 2.5 to 5.0 (paste) 3.5 to 4.5 l/m ² (powder + liq.) 2.1 to 5.0 (paste) 2.1 to 5.0 (paste) 2.5 to 3.2 (paste) 2.6 to 4.7 (paste)	Regulated by particles size

	<ul style="list-style-type: none"> • Ready to use paste – JUBIZOL Kulirplast 2.0 - based on water-based acrylic binders, marble fillers, special additives (in combination with all base coats, except JUBIZOL ULTRA LIGHT FIX and JUBIZOL Cement-free base coat). • Ready to use paste – JUBIZOL Kulirplast 1.8 premium - based on water-based acrylic binders, mineral fillers, special additives (in combination with all base coats, except JUBIZOL ULTRA LIGHT FIX and JUBIZOL Cement-free base coat). 	4,0 to 4,5 (paste)	
Façade paints	<ul style="list-style-type: none"> • Acrylcolor – based on water-based acrylic binders, special additives (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Revitalcolour AG - based on water-based acrylic binders, special additives, micro-reinforcing fibers (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Jubosilcolor Silicone - based on water-based silicon binders, special additives (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Nanoxilcolor - based on water-based silicone binders, special additives, special fillers, micro-reinforcing fibers (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Revitalcolor Silicone - based on water-based silicone binders, special additives, micro-reinforcing fibers (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Jubosilcolor Silicate - based on water-based potassium silicate binder, special additives (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Revitalcolor Silicate - based on water-based potassium silicate binder, special additives, micro-reinforcing fibers (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). • Décor Antique - based on water-based potassium silicate binder, special additives (in combination with all finishing coats, except JUBIZOL Kulirplast 2.0 and JUBIZOL Kulirplast 1.8 premium). 	200 ml/m ² (solution)	
Ancillary materials	<p>Descriptions in accordance with § 3.2.2.5 of the ETAG 004. Remain under the ETA-holder responsibilities</p>		

* Note: Finishing coat **NIVELIN D + façade paints** are applied without key coats.