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Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment).

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European Technical Assessment ETA-09/0393

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English version prepared by ZAG

I GENERAL PART

Komercialno ime *Trade name*	**JUBIZOL EPS**
Imetnik tehnične ocene: *Holder of Technical Assessment*	**JUB d.o.o.** **Dol pri Ljubljani 28** **SI-1262 Dol pri Ljubljani** **Slovenija**
Družina proizvoda: *Product family :*	Zunanji toplotnoizolacijski sestavljeni sistemi z ometom, namenjeni za izolacijo zunanjih zidov zgradb *External Thermal Insulation Composite Systems with rendering for the use as external insulation to the walls of buildings*
Proizvodni obrat: *Manufacturing plant*	**Plant 1** **Plant 4** **Plant 2** **Plant 5** **Plant 3**
Ta Evropska tehnična ocena vsebuje: *This European Technical Assessment contains*	46 strani vključno s 4 prilogami, ki so sestavni del te ocene *46 pages including 4 annexes which form an integral part of the document*
Ta Evropska tehnična ocena je izdana na podlagi Uredbe (EU) št. 305/2001 na podlagi *This European Technical Assessment is issued in according to Regulation (EU) No 305/2011, on the basis of*	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/m²)	Thickness (mm)
Insulation materials with associated methods of fixing	**Bonded (partially or fully) and mechanically fixed ETICS with anchors and supplementary adhesive (see § 3.4.4) for possible associations EPS/anchors)** • **Insulation products (currently used EPS insulation)** 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,** EPSs denotated as a), b), c), d) and e) are coded according to EN 13163:2012+A1:2015 as: **EPS-EN 13163-T1-L2-W2-S2-P5-DS(N)2-DS(70,-)1-TR150-BS100.** EPSs denotated as f) and g) are coded according to EN 13163:2012+A1:2015 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.** • **Adhesive** 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***, SDM-T plus*, SDF-K plus*, Ejotherm NT-U*,** - **Ejotherm NK-U*, Ejotherm NTK-U*, Ejotherm H1 Eco* ***,** - **Ejotherm H3** ***, STR U 2G*** - **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 Plastično pritrdilo PP**, PSK***, PSV***, PPV * ***,** - **Ranit IsoFux NDT8LZ*, ND8LZ*, ND8LZ K*, NDS8Z*, NDM8Z*, NDS90Z*, NDM90Z*, IsoFux*,** - **WKRET MET LFN-8*, MET LFM-8*, MET LTX-10*, MET LMX-10*.**	/ 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) * to be used with EPS ≥ 60 mm ** to be used with EPS ≥ 50 mm *** to be used with EPS ≥ 80 mm	to 300
Base coat	a) **JUBIZOL ADHESIVE MORTAR** – dry mix cement base coat powder requiring addition of ~20 % 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.	4.2 – 8.4 (powder) 4.2 – 8.4 (powder) 3.8 – 4.5 (paste) 4.2 – 5.6 (powder)	maximal (dry): 6 minimal (dry): 3 maximal (dry): 6 minimal (dry): 3 maximal (dry): 3 minimal (dry): 2.5 maximal

	e) **JUBIZOL MICROAIR FIX** – dry mix cement base coat powder requiring addition of ~20 % water. It consists of aggregates, cement, dispersion powder, special additives	4.2 – 5.6 (powder)	(dry): 4 minimal (dry): 3
	f) **JUBIZOL ULTRALIGHT FIX** - dry mix cement-based mortar with EPS beads, refined with polymer binder, requiring addition of ~24% water.	4,8 – 9,6 (powder)	maximal (dry): 4 minimal (dry): 3
	g) **JUBIZOL UNIWOOL ADHESIVE** - dry mix cement-based mortar, refined with polymer binder, requiring addition of ~23% water	4,2 – 8,4 (powder)	maximal (dry): 6 minimal (dry): 3
			maximal (dry): 6 minimal (dry): 3
Glass fibres meshes	**Standard meshes** (glass fibres meshes with mesh size between **3.5** and **4.7** mm): • **JUBIZOL glass fibre mesh** - where **JUBIZOL glass fibre mesh** denotate ETA-holder own designation	/	/
Key coat	• **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)	0.15 - 0.20	/
	• **Acryl emulsion** - liquid, water based acrylic primer intended as a key coat for the acrylic and mineral based finishing coats	about 0.1	/
	• **Acrycolor** - liquid exterior acrylic waterborne facade paint as a key coat for the acrylic and mineral based finishing coats	about 0.1 l / m²	/
	• **SILICATEprimer** - liquid, water based silicate primer intended as a key coat for the silicate based finishing coats	about 0.1 l / m²	/
	• **SILICONEprimer** - liquid, water based silicone primer intended as a key coat for the silicone based finishing coats	about 0.1 l / m²	/

	Components (see § 3.3, § 3.4 for further description, characteristics and performances of the components)	**Coverage** (kg/m²)	**Thickness** (mm)
Finishing coats	• **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**)	2.6 to 3.1 (powder)	Regulated by particles size
	• **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**)	2.6 to 3.6 (powder)	
	• 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**)	2.5 to 3.2 (paste)	
	• 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**)	3.0 to 5.5 (paste)	
	• 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)	2.8 to 3.5 (paste)	
	• 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)	2.4 to 4.7 (paste)	
	• 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)	2.5 to 3.2 (paste)	

	• 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)	2.5 to 5.0 (paste)	
	• **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**)	3.5 to 4.5 l/m² (powder + liquid)	
	• 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)	2.1 to 5.0 (paste)	
	• 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)	2.1 to 5.0 (paste)	
	• 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)	2.5 to 3.2 (paste)	
	• 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 4.7 (paste)	
	• 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**	4,0 to 4,5 (paste)	
	• 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	• **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.**	200 ml/m² (solution)	
	• **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.**	270 ml/m² (solution)	
	• **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.**	200 ml/m² (solution)	
	• **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.**	270 ml/m² (solution)	
	• **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.**	270 ml/m² (solution)	
	• **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.**	200 ml/m² (solution)	
	• **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.**	270 ml/m² (solution)	
	• **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.**	180 ml/m² (solution)	
Ancillary materials	Descriptions in accordance with § 3.2.2.5 of the ETAG 004. Remain under the ETA-holder responsibilities		

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

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

2.1 Intended use

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) with a reaction to fire classification A1 or A2-s1,d0 according to SIST EN 13501-1 and a minimum density of 820 kg/m^3 or A1 according to the EC decision 96/603/EC as amended. The ETICS is designed to give the wall to which it is applied satisfactory thermal insulation.

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 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 not intended to ensure the air-tightness of the building structure.

The choice of the method of fixing depends on the characteristics of the substrate, which could need preparation (see § 7.2.1 of the ETAG no. 004) and shall be done in accordance with national instructions.

The provisions made in this European Technical Assessment (ETA) are based on an assumed intended working life of at least 25 years, provided that the conditions laid down in sections 4.2, 5.1 and 5.2 for the packaging, transport, storage and installation as well as appropriate use, maintenance and repair are met. The indications given as to the working life cannot be interpreted as a guarantee given by the manufacturer or the 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.

2.2 Manufacturing

The European Technical Assessment is issued for the ETICS on the basis of agreed data/information, deposited with the Zavod za gradbeništvo Slovenije (ZAG Ljubljana), which identifies the ETICS that has been assessed and judged. Changes to the ETICS or production process, which could result in the deposited data/information being incorrect should be notified to the ZAG Ljubljana before the changes are introduced. The ZAG Ljubljana will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

2.3 Design and installation

The installation instructions including special installation techniques and provisions for the qualification of the personnel are given in the manufacturer's technical documentation. Design, installation and execution of ETICS are to be in conformity with national documents. Such documents and the level of their implementation in Member States' legislation are different.

Therefore, the assessment and declaration if performance are done taking into account general assumptions introduced in the chapter 7 of ETAG 004 used as EAD, which