

Zavod za gradbeništvo Slovenije
Slovenian National Building and Civil
Engineering Institute

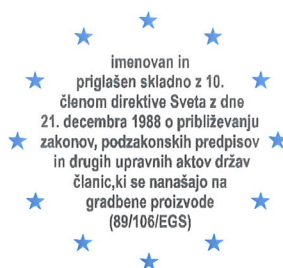
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član EOTA
Member of EOTA

European Technical Approval **ETA-08/0236**

[English translation prepared by ZAG Ljubljana – Original version in Slovenian language]

Trade name:
Komerzialno ime:

JUBIZOL S70

Holder of approval:
Imetnik soglasja:

JUB d.o.o.
Dol pri Ljubljani 28
SI-1262 Dol pri Ljubljani
Slovenija

**Generic type and use of
construction product:**

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

Tip gradbenega proizvoda in njegova
predvidena uporaba::

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

Validity **from / to:**
Veljavnost od / do:

29. 06. 2013
28. 06. 2018

Manufacturing plant:
Proizvodni obrat:

Plant 1 Plant 4
Plant 2 Plant 5
Plant 3

Issue Nr.:
Izdaja št.:

3

This Approval replaces:
To soglasje zamenjuje:

ETA-08/0236 validity from 1. 12. 2010 to 8. 9. 2013
ETA-08/0236 veljavno od 1. 12. 2010 do 8. 9. 2013

**This European Technical
Approval contains:**
To Evropsko tehnično soglasje
vsebuje:

33 pages including 2 annex
33 strani vključno z 2 prilogama



Evropska organizacija za tehnična soglasja
European Organisation for Technical Approvals



I LEGAL BASES AND GENERAL CONDITIONS

1. This European Technical Approval is issued by the Slovenian National Building and Civil Engineering Institute (ZAG Ljubljana) in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by the Council Directive 93/68/EEC² and Regulation (EC) no. 1882/2003 of the European Parliament and of the Council³,
 - Zakon o gradbenih proizvodih (ZGPro)⁴,
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex of Commission Decision 94/23/EC⁵,
 - Guideline for European Technical Approval of “External Thermal Insulation Composite Systems with rendering”, ETAG 004, Edition 2011, PROGRESS FILE 8/2011⁶.
2. The Slovenian National Building and Civil Engineering Institute (ZAG Ljubljana) is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
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¹ Official Journal of the European Communities no. L 40, 11.2.1989, p.12

² Official Journal of the European Communities no. L 220, 30.8.1993, p.1

³ Official Journal of the European Union no. L 284, 31.10.2003, p.1

⁴ Official Gazette of the Republic of Slovenia, no. 52/00 and no. 110/02

⁵ Official Journal of the European Communities no. L 17, 20.1.1994, p.34

⁶ In this document reference to ETAG 004 or ETAG no. 004 refers to the Edition 2011, Progress file 8/2011



II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1. Definition of products and intended use

The External Thermal Insulation Composite System, "JUBIZOL S70" called ETICS in the following text, is designed and installed in accordance with the ETA-holder's design and installation instructions, deposited with ZAG Ljubljana. The ETICS comprises the following components, which are factory-produced by the ETA-holder or a supplier.

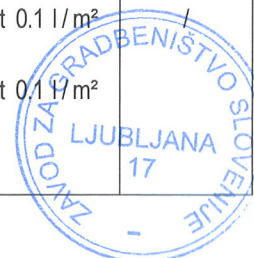
This ETICS can be sold under the trade name "JUBIZOL S70".

1.1. Definition of the construction product (kit)

| | Components (see § 2.3 for further description, characteristics and performances of the components) | Coverage (kg/m ²) | Thickness (mm) |
|--|---|--|---------------------------------|
| Insulation materials with associated methods of fixing | Bonded ETICS <ul style="list-style-type: none"> • Insulation product EPS-EN 13163-T1-L1-W1-S2-P4-DS(N)2-DS(70,-)2-TR100-BS100 • Adhesive <ol style="list-style-type: none"> 1. JUBIZOL Adhesive mortar – dry mix cement based adhesive requiring addition of ~ 20 % water 2. JUBIZOL Adhesive – dry mix cement based adhesive requiring addition of ~ 20 % water 3. EPS Adhesive mortar – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water | / | maximal 300 |
| | Bonded ETICS with supplementary mechanical fixings <ul style="list-style-type: none"> • Insulation product EPS-EN 13163- T1-L1-W1-S2-P4-DS(N)2-DS(70,-)2-TR100-BS100 • Adhesive <ol style="list-style-type: none"> 1. JUBIZOL Adhesive mortar – dry mix cement based adhesive requiring addition of ~20 % water 2. JUBIZOL Adhesive – dry mix cement based adhesive requiring addition of ~20 % water 3. EPS Adhesive mortar – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water • Anchors <ul style="list-style-type: none"> • Ejothorm STR-U#, SDM-T plus*, SDF-K plus*, Ejothorm NT-U*, Ejothorm NK-U*, Ejothorm NTK-U* • EJOT Ejothorm H1 Eco\$, STR U 2G\$ • Hilti SX-FV*, SD-FV 8**, XI-FV*, D-FV * and D-FV T* • Fischer Termoz 8 U&, Termoz 8 N&, Termoz KS 8&, Termoz 8 SV*, Termoz 8 UZ# • Leskovec Plastično pritrdilo PP** and Pritrdilno sidro PSK** • Ranit IsoFux NDT8LZ*, ND8LZ*, ND8LZ K*, NDS8Z*, NDM8Z*, NDS90Z*, NDM90Z* and IsoFux* • Bravoll PTH-KZ 60/8-La**, PTH-KZL 60/8-La**, PTH 60/8-La*, PTH-L 60/8-La* • WKRET MET LFN-8**, MET LFM-8**, MET LTX-10**, MET LMX-10** • Leskovec Pritrdilno sidro PPV* <p>Anchors are used only where necessary to provide stability until adhesive has dried.</p> | / 3.5 - 5.0 (powder) 3.5 - 5.0 (powder) 3.5 - 5.0 (powder) * to be used with EPS ≥ 60 mm ** to be used with EPS ≥ 50 mm & to be used with EPS ≥ 50 mm and TR ≥150 kPa \$ to be used with EPS ≥ 60 mm and TR ≥150 kPa # to be used with EPS ≥ 80 mm | maximal 300 / / / / |



| | Components (see § 2.3 for further description, characteristics and performances of the components) | Coverage (kg/m ²) | Thickness (mm) |
|---|---|---|--|
| Insulation materials with associated methods of fixing | <p>Mechanically fixed ETICS with anchors and supplementary adhesive (see § 2.2.8.3.a) for possible associations EPS/anchors)</p> <ul style="list-style-type: none"> • Insulation product EPS-EN 13163- T1-L1-W1-S2-P4-DS(N)2-DS(70,-)2-TR100-BS100 • Adhesive <ol style="list-style-type: none"> 1. JUBIZOL Adhesive mortar – dry mix cement based adhesive requiring addition of ~20 % water 2. JUBIZOL Adhesive – dry mix cement based adhesive requiring addition of ~20 % water 3. EPS Adhesive mortar – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water • Anchors <ul style="list-style-type: none"> • Ejotharm STR-U[#], SDM-T plus[*], SDF-K plus[*], Ejotharm NT-U[*], Ejotharm NK-U[*], Ejotharm NTK-U[*] • EJOT Ejotharm H1 Eco^{&}, STR U 2G^{\$} • Hilti SX-FV[*], SD-FV 8^{**}, XI-FV[*], D-FV [*] and D-FV T[*] • Fischer Termoz 8 U^{&}, Termoz 8 N^{&}, Termoz KS 8^{&}, Termoz 8 SV[*], Termoz 8 UZ[#] • Leskovec Plastično pritrdilo PP^{**} and Pritrdilno sidro PSK^{**} • Ranit IsoFux NDT8LZ[*], ND8LZ[*], ND8LZ K[*], NDS8Z[*], NDM8Z[*], NDS90Z[*], NDM90Z[*] and IsoFux[*] • Bravoll PTH-KZ 60/8-L^{a**}, PTH-KZL 60/8-L^{a**}, PTH 60/8-L^{a*}, PTH-L 60/8-L^{a*} • WKRET MET LFN-8^{**}, MET LFM-8^{**}, MET LTX-10^{**}, MET LMX-10^{**} • Leskovec Pritrdilno sidro PPV[*] | <p>/</p> <p>3.5 - 5.0 (powder)</p> <p>3.5 - 5.0 (powder)</p> <p>3.5 - 5.0 (powder)</p> <p>* to be used with EPS ≥ 60 mm ** to be used with EPS ≥ 50 mm & to be used with EPS ≥ 50 mm and TR ≥ 150 kPa \$ to be used with EPS ≥ 60 mm and TR ≥ 150 kPa # to be used with EPS ≥ 80 mm</p> | <p>maximal 300</p> <p>/</p> <p>/</p> <p>/</p> |
| Base coat | <p>a) EPS Adhesive mortar – powdered high-elasticity cement-based mortar, refined with polymer binder, requiring addition of 20 % water. EPS Adhesive mortar consists of aggregates, cement, polymer binders, special additives</p> <p>b) JUBIZOL Cement-free base coat – polymer based adhesive, paste form. JUBIZOL Cement-free base coat consists of aggregates, polymer, binders, special additives</p> <p>c) JUBIZOL Adhesive mortar – dry mix cement base coat powder requiring addition of ~20 % water. JUBIZOL adhesive mortar consists of aggregates, cement, dispersion powder, special additives</p> | <p>4.2 – 5.6 (powder)</p> <p>3.8 – 4.5 (paste)</p> <p>4.2 – 8.4 (powder)</p> | <p>maximal (dry): 4 minimal (dry): 3</p> <p>maximal (dry): 3 minimal (dry): 2.5</p> <p>maximal (dry): 6 minimal (dry): 3</p> |
| 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 = ETA- holder own designation | / | / |
| Key coat | <ul style="list-style-type: none"> • UNIGRUND – Universal primer for decorative renders - 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) • AKRIL EMULSION - acrylic primer and plasticizing compound - liquid, water based acrylic primer intended as a key coat for the acrylic and mineral based finishing coats • ACRYLCOLOR - acrylic facade paint - 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 | <p>0.15 - 0.20</p> <p>about 0.1</p> <p>about 0.1 l/m²</p> <p>about 0.1 l/m²</p> <p>about 0.1 l/m²</p> | <p>/</p> <p>/</p> <p>/</p> <p>/</p> <p>/</p> |



| | Components (see § 2.3 for further description, characteristics and performances of the components) | Coverage (kg/m ²) | Thickness (mm) |
|----------------------------|--|--|-----------------------------|
| Finishing coats | <ul style="list-style-type: none"> • Mineral Trowelled Render 2.0 / 2.5 – ready-mixed lime-cement based mortar requiring addition of water 20-23 %, based on lime, cement, aggregates, additives (only in combination with base coats JUBIZOL Adhesive mortar and EPS Adhesive mortar) • Mineral Smooth Render 1.5 / 2.5 – ready-mixed lime-cement based mortar requiring addition of water 20-23 %, based on lime, cement, aggregates, additives (only in combination with base coats JUBIZOL Adhesive mortar and EPS Adhesive mortar) • Ready to use paste – Silicate Trowelled Render 2.0 / 2.5 - based on potassium silicate and water-based acrylic binder, aggregates, additives. (only in combination with base coats JUBIZOL Adhesive mortar and EPS Adhesive mortar) • Ready to use paste – Silicate Smooth Render 1.5 / 2.0 / 2.5 - based on potassium silicate and water-based acrylic binder, aggregates, additives (only in combination with base coats JUBIZOL Adhesive mortar and EPS Adhesive mortar) • Ready to use paste – Silicone Trowelled Render 2.0 / 2.5 - based on silicone emulsion and water-based acrylic binder, aggregates, additives (in combination with all three base coats) • Ready to use paste – Silicone Smooth Render 1.5 / 2.0 / 2.5 - based on silicone emulsion and water-based acrylic binder, aggregates, additives (in combination with all three base coats) • Ready to use paste – Acrylic Trowelled Render 2.0 / 2.5 - based on water-based acrylic binder, aggregates, additives (in combination with all three base coats) • Ready to use paste – Acrylic Smooth Render 1.5 / 2.0 / 2.5 - based on water-based acrylic binder, aggregates, additives (in combination with all three base coats) • Nivellin D + Revitalcolor AG* – 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 base coat JUBIZOL Adhesive mortar) • Ready to use paste – Unixil G - Siloxanised Acrylic Smooth Render 1.5 / 2.0 / 2.5 - based on water-based acrylic binders, mineral fillers, special additives (in combination with all three base coats) • Ready to use paste – Unixil Z - Siloxanised Acrylic Trowelled Render 2.0 / 2.5 - based on water-based acrylic binders, mineral fillers, special additives (in combination with all three base coats) • Ready to use paste – Nanoxil G - Self-cleaning Silicone Smooth Render 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 three base coats) | <p>2.6 to 3.1 (powder)</p> <p>2.6 to 3.6 (powder)</p> <p>2.5 to 3.2 (paste)</p> <p>3.0 to 5.5 (paste)</p> <p>2.8 to 3.5 (paste)</p> <p>2.4 to 4.7 (paste)</p> <p>2.5 to 3.2 (paste)</p> <p>2.5 to 5.0 (paste)</p> <p>~ 4.5 + (~ 0.5 l/m²) (powder + liquid)</p> <p>2.5 to 5.0 (paste)</p> <p>2.5 to 3.2 (paste)</p> <p>2.6 to 4.7 (paste)</p> | Regulated by particles size |
| Ancillary materials | Descriptions in accordance with § 3.2.2.5 of the ETAG 004. Remain under the ETA-holder responsibilities | | |

* Note: Finishing coat **Nivellin D + Revitalcolor AG** is applied without key coat .



1.2. 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/m³ 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 the national instructions.

The provisions made in this European Technical Approval (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 Approval 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. Characteristics of product and methods of verification

2.1. General

The identification tests and the assessment of the fitness for use of this ETICS according to the Essential Requirements were carried out in compliance with the "ETA Guideline no. 004" concerning External Thermal Insulation Composite Systems with rendering – Edition 2011, PROGRESS FILE 8/2011 (called ETAG 004 in this ETA).

