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European Technical Assessment

ETA-16/0997
of 23.05.2025

General part

Technical Assessment Body issuing the European Technical Assessment:

Österreichisches Institut für Bautechnik (OIB)
Austrian Institute of Construction Engineering

Trade name:

best wood SCHNEIDER®
Wärmedämmverbundsystem

Product family to which the construction product belongs:

External Thermal Insulation Composite Systems with rendering on wood fibre (WF) for the use as external insulation to walls of buildings.

Manufacturer:

Holzwerk Gebrüder Schneider GmbH
Kappel 28
88436 Eberhardzell
GERMANY

Manufacturing plant:

Holzwerk Gebrüder Schneider GmbH
Kappel 28
88436 Eberhardzell
GERMANY

This European Technical Assessment contains:

23 pages

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

European Assessment Document (EAD)
040089-00-0404 "ETICS with renderings for the use on timber frame buildings"

This European Technical Assessment replaces

European Technical Assessment ETA-16/0997 of 20.02.2020

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Specific parts

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 wood fibre insulation product (uncoated and factory-provided pre-coated boards) to be mechanically fixed onto a wall. 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

	Components	Coverage (kg/m ²)	Thickness (mm)
	Mechanically fixed ETICS or mechanically fixed ETICS with supplementary bonding		
Insulation materials with associated methods of fixing	➤ Insulation product: as 1 layer: best wood WALL 180 / best wood WALL 180 D / best wood MULTI 180	/	20 to 180
	best wood WALL 140 / best wood MULTI 140	/	20 to 240
	best wood WALL 110 / best wood MULTI 110	/	60 to 240
	as 2 layers (MULTITHERM 110/140 is not plasterable): best wood WALL 180 / best wood WALL 180 D / best wood MULTI 180	/	60 to 180
	best wood WALL 140 / best wood MULTI 140	/	60 to 200
	best wood WALL 110 / best wood MULTI 110	/	60 to 200
	best wood MULTITHERM 140	/	60 to 200
	best wood MULTITHERM 110	/	60 to 200
	➤ Fixings: - Anchors tested in support with EN 1382 "Withdrawal capacity of timber fasteners"	/	/
	- Staples	/	/

	Components	Coverage (kg/m ²)	Thickness (mm)
Base coat	Aggregates, cement, sand, synthetic resin dispersion powder, additives:		
	- best wood Klebe- und Armierungsmörtel (UP)	4,5 to 10,0 (powder)	5,0 to 8,0
	- best wood activDry Klebe- und Armierungsmörtel	4,5 to 10,0 (powder)	5,0 to 8,0
	- FIXIT 439 [IA 680]	4,5 to 10,0 (powder)	5,0 to 8,0
	- HASIT Dieplast 860 Light [IA 680]		
	- KREISEL IA 680		
	- RÖFIX Unistar LIGHT [IA 680]		
	- FIXIT 435 [IA 710]	3,5 to 6,0 (powder)	5,0 to 8,0
	- HASIT Dieplast 804 [IA 710]		
	- KREISEL IA 710		
	- RÖFIX Polystar [IA 710]		
	- FIXIT 435 [IA 720]	3,5 to 6,0 (powder)	5,0 to 8,0
	- HASIT Dieplast 804 [IA 720]		
	- KREISEL IA 720		
	- RÖFIX Polystar [IA 720]		
	- AKURIT SK leicht Spachtel- und Klebemörtel	6,4 to 9,4 (powder)	5,0 to 7,0
	- weber.therm family KS grob	ca. 7,00 (powder)	4,0 to 7,0
	- weber.therm freestyle KS	ca. 7,0 (powder)	4,0 to 7,0
	- weber.therm prestige KS	ca. 7,0 (powder)	4,0 to 7,0
	- weber.therm 301	3,5 to 6,0 (powder)	4,0 to 7,0
	- maxit multi 285	4,5 to 10,0 (powder)	5,0 to 8,0 5,0 to 8,0
	- villerit InnoTherm Klebe- und Armierungsmörtel	4,5 to 10,0 (powder)	5,0 to 8,0
	- villerit InnoTherm activeDRY Klebe- und Armierungsmörtel	4,5 to 10,0 (powder)	5,0 to 8,0
	- Baunit multiContact MC 55W	3,5 to 6,0 (powder)	5,0 to 8,0
	- Baunit Dickschicht Klebespachtel	3,5 to 6,0 (powder)	5,0 to 8,0
	- Baunit KlebeSpachtel light	3,5 to 6,0 (powder)	5,0 to 8,0
	- Baunit multiContact MC 55W	3,5 to 6,0 (powder)	

	Components	Coverage (kg/m ²)	Thickness (mm)
Base coat	- Baunit Dickschicht Klebespachtel - Baunit KlebeSpachtel light - Knauf Luis - Knauf SM 700 Pro	3,5 to 6,0 (powder) 3,5 to 6,0 (powder) 7,0 to 10,0 (powder) 7,0 to 14,0 (powder)	5,0 to 8,0 5,0 to 8,0 5,0 to 7,0 5,0 to 10,0
Glass fibre mesh	➤ Standard glass fibre mesh: Mesh size between 3 mm and 6 mm: - best wood Armierungsgewebe - villerit Armierungsgewebe fein - FIXIT Armierungsgewebe - HASIT Armierungsgewebe - KREISEL Armierungsgewebe - RÖFIX Armierungsgewebe - AKURIT GM Armierungsgewebe mittel - weber.therm 311 - weber.therm Textilglasgittergewebe - maxit Armierungsgewebe PS 4x4 - armature trame G2 - Baunit StarTex Fein - Baunit TextilglasGitter - Knauf Armierungsgewebe	/ / / / / / / / / / / / / /	/ / / / / / / / / / / / / /
Key coat	Organic based with mineral fillers and pigments: - FIXIT Putzgrund [SP 300] - HASIT Putzgrund [SP 300] - KREISEL Putzgrund [SP 300] - RÖFIX Putzgrund [SP 300] - FIXIT Putzgrund PREMIUM [SP 310] - HASIT Putzgrund PREMIUM [SP 310] - KREISEL Putzgrund PREMIUM [SP 310] - RÖFIX Putzgrund PREMIUM [SP 310] - AKURIT GMG Mineralgrund - Baunit PremiumPrimer DG 27 - Baunit UniPrimer - Baunit PremiumPrimer	0,25 (liquid) 0,25 (liquid) 0,30-0,40 (liquid) 0,25 (liquid)	/ / / /

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coat	➤ Mineral powder - cement based: particle size 1,5-6,0mm mm - best wood Mineralischer Oberputz (MOP) Kratzputzstruktur - best wood Mineralischer Oberputz activDRY K - villerit Stockputz - villerit activDRY Mineralputz K	2,2 to 6,6 (powder)	/
	- villerit Rauhputz - villerit activDRY Mineralputz R	2,2 to 6,6 (powder)	/
	- particle size 2,0/3,0/5,0 mm: - best wood Mineralischer Oberputz (MOP) Rillenputzstruktur	2,2 to 6,6 (powder)	/
	- best wood Mineralischer Oberputz activDRY R	2,2 to 6,6 (powder)	/
	- best wood Mineralischer Oberputz (MOP) Modellierputzstruktur	2,5 to 3,5 (powder)	/
	- best wood Mineralischer Oberputz activDRY Rustik	2,5 to 3,5 (powder)	/
	➤ Ready to use paste – silicon resin: particle size 2,0/3,0 mm: - best wood Silikonharz Oberputz (SOP)	2,5 to 3,8 (paste)	/
	➤ Mineral powder – cement based: particle size 1,5 to 3,0mm - villerit Rustikalputz - villerit activDRY Mineralputz Rustik	2,5 to 5,0 (powder)	/
	➤ Ready to use paste – silicon resin: particle size 1,5 to 4,0mm - villerit Siliconit K/R	2,2 to 5,0 (paste)	/
	➤ Lime-cement based powder requiring addition of 20 to 36 % water: particle size 0,7/1,0/1,5/2,0/3,0/4,0/7,0 mm - FIXIT 714, FIXIT 715, FIXIT 716, FIXIT 777 - HASIT 252, HASIT 704 [SE 714], HASIT 705, HASIT 709 [SE 716], HASIT 715 [SE 715], HASIT 725 - KREISEL 714, KREISEL 715, KREISEL 716 - RÖFIX SE 714, RÖFIX 715 [SE 715], RÖFIX SE 716, RÖFIX 772	1,8 to 24,0 (powder)	/
	➤ Ready to use paste – silicate binder: Particle size 1,0/1,5/2,0/3,0/6,0 mm - FIXIT Silikatputz [SE 210] - HASIT Silikatputz [SE 210] - KREISEL Silikatputz [SE 210] - RÖFIX Silikatputz [SE 210]	2,4 to 5,5 (paste)	/

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coat	➤ Ready to use paste – acryl and silicon resin: particle size 1,0/1,5/2,0/3,0 mm - FIXIT Silikonharzputz [SE 410] - HASIT Silikonharzputz [SE 410] - KREISEL Silikonharzputz [SE 410] - RÖFIX Silikonharzputz [SE 410]	2,4 to 4,0 (paste)	Regulated by particle size
	➤ Ready to use paste – silicate binder/silicon resin: Particle size 1,0/1,5/2,0/3,0/4,0/6,0mm - FIXIT SiSi-Putz [SE 510] - HASIT SiSi-Putz [SE 510] - KREISEL SiSi-Putz [SE 510] - RÖFIX SiSi-Putz [SE 510]	2,4 to 5,5 (paste)	
	➤ Ready to use paste – silicate binder/silicon resin: Particle size 0,7 mm - FIXIT SE 520 - HASIT SE 520 - KREISEL SE 520 - RÖFIX Anticofino [SE 520]	2,4 (paste)	
	Particle size 0,4 mm - FIXIT SE 530 - HASIT SE 530 - KREISEL SE 530 - RÖFIX Decofino [SE 530]	2,4 (paste)	
	➤ Ready to use paste – cement-synthetic binder: Particle size 1,0/2,0/3,0/4,0 mm - FIXIT SE 773 - HASIT SE 773 - KREISEL SE 773 - RÖFIX 773 [SE 773]	11,0 to 18,0 (paste)	
	➤ Mineral powder - cement based: particle size 2,0/3,0 mm: - AKURIT VARIOSTAR Strukturputz	2,5 to 7,0 (powder)	
	particle size 2,0/3,0/5,0 mm: - AKURIT RP Rustikalputz	2,5 to 7,0 (powder)	
	- AKURIT SP Scheibenputz	2,5 to 7,0 (powder)	
	- AKURIT MR Münchner Rauputz	2,5 to 7,0 (powder)	
	➤ Ready to use paste – silicon resin: particle size 2,0/3,0 mm: - AKURIT PSH Silikonharzputz K/R/MP	1,8 to 4,3 (paste)	

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coat	➤ Mineral powder - cement based: particle size 2,0/3,0 mm: - weber.star 220 AquaBalance - maxit star 220	2,5 to 4,0 (powder) 2,5 to 4,0 (powder)	Regulated by particle size
	➤ Ready to use paste – silicon resin: particle size 2,0/3,0 mm: - weber.pas 481 top - weber.pas 481 AquaBalance - weber.pas Silikonharzputz - maxit silco A 9030	2,0 to 4,0 (paste) 2,0 to 4,0 (paste) 2,0 to 4,0 (paste) 2,0 to 4,0 (paste)	
	➤ Mineral powder - cement based: particle size 2,0/3,0 mm: - villerit Stockputz - Baumit Fascina	2,5 to 5,0 (powder) 3,1 to 3,7 (powder)	
	➤ Ready to use paste – silicon resin: particle size 2,0/3,0 mm: - villerit Siliconharzoberputz	2,5 to 3,8 (paste)	
	particle size 1,0/2,0/3,0 mm: - Baumit SilikonTop	2,5 to 4,2 (paste)	
	particle size S-Fine 0,1 mm, Fine 1,0 mm, Trend 3,0 mm, Max 4,0 mm: - Baumit CreativTop	2,5 to 4,2 (paste)	
	➤ Ready to use paste – silicate binder: particle size 2,0/3,0 mm: - Baumit SilikatTop	2,5 to 4,2 (paste)	2,0 – 3,0
	➤ Mineral powder - cement based: particle size 2,0/3,0/5,0 mm: - Baumit ScheibenPutz SEP - Knauf SP260 Pro	2,5 to 4,0 (powder) 3,2 to 5,0 (powder)	
	particle size 1,0 mm - Knauf SM 700 Pro	2,5 to 4,2 (powder)	
	particle size 2,0/3,0/5,0 mm: - Knauf RP240	3,1 to 5,0 (powder)	
	particle size 1,5/2,0/3,0 mm: - Knauf Noblo	2,3 to 3,7 (powder)	

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing coat	➤ Mineral powder - cement based: particle size 1,0/1,5 mm: - Knauf Noblo Filz 1,0/1,5 - particle size 1,5/2,0/3,0 mm: - Knauf MineralAktiv Scheibenputz - particle size 2,0/3,0 mm: - Knauf MineralAktiv Scheibenputz dry ➤ Ready to use paste – silicon resin: particle size 1,5/2,0/3,0 mm: - Knauf Conni S ➤ Ready to use paste – organic binder: particle size 1,5/2,0/3,0 mm: - Knauf Addi S	1,6 to 8,0 (powder) 2,8 to 3,8 (paste) 2,4 to 3,4 (powder) 2,2 to 3,8 (paste) 2,2 to 3,2 (paste)	1,0 – 5,0 Regulated by particle size
Finishing paint	➤ Ready to use finishing paint Silicon emulsion and water based acrylic binder, aggregates, additives: - FIXIT PE 429 - HASIT PE 429 - KREISEL PE 429 - RÖFIX PE 429 ➤ Silicate emulsion and water based acrylic binder, aggregates, additives: - FIXIT PE 228, FIXIT PE 229 - HASIT PE 228, HASIT PE 229 - KREISEL PE 228, KREISEL PE 229 - RÖFIX PE 229 ➤ Silicate emulsion, silicon resin emulsion, water based acrylic binder, aggregates, additives: - FIXIT PE 516, FIXIT PE 519 - HASIT PE 516, HASIT PE 519 - KREISEL PE 516, KREISEL PE 519 - RÖFIX PE 516, RÖFIX PE 519 ➤ Silicate emulsion, silicon resin emulsion, water based acrylic binder, aggregates, additives: - FIXIT PE 319 - HASIT PE 319 - KREISEL PE 319 - RÖFIX PE 319 ➤ Ready to use finishing paint – silicon resin: - AKURIT FSH Silikonharzfinish - Villerit Siliconharzfarbe	0,2 to 0,4 l (liquid) 0,2 to 0,4 l (liquid) 0,2 to 0,4 l (liquid) 0,2 to 0,4 l (liquid) 0,3 to 0,6 l (liquid) 0,25 to 0,4 l (liquid)	/ / / / / /

	Components	Coverage (kg/m ²)	Thickness (mm)
Finishing paint	➤ Ready to use finishing paint – silicon resin:		
	- weber.ton 411 Siliconharzfarbe	0,25 to 0,4 l (liquid)	/
	- weber.ton 412 Kunstharzfarbe	0,25 to 0,4 l (liquid)	/
	- maxit Siliconharzfarbe A 7030	0,25 to 0,4 l (liquid)	/
	- maxit Dispersionsfarbe A 7060	0,25 to 0,4 l (liquid)	/
	➤ Ready to use finishing paint – mineral based:		
	- Knauf MineralAktiv Fassadenfarbe (with Knauf MineralAktiv Scheibenputz dry)	0,25 to 0,4 l (liquid)	/

Note: Possible and tested combinations of all listed components in this clause shall be given in technical literature of the ETA-holder.

1.2.2 Characteristics of the insulation product

Descriptions and characteristics	best wood WALL 180/ best wood WALL 180 D/best wood MULTI 180
Reaction to fire / EN 13501-1	Euroclass E - Thickness: 20 mm to 180 mm - density: 180 kg/m ³
Thermal resistance ((m ² .K)/W)	Defined in the CE marking in ref. to EN 13171 "Thermal insulation products for buildings" -Factory made wood fibre (WF) products
Designation Code	WF-EN13171-T5-CS(10\Y)150-TR30-WS1,0-AF100-MU3
Water absorption (partial immersion) / EN 1609	≤ 1,0 kg/m ²
Water vapour diffusion resistance factor (μ) / EN 12086	≤ 3

Descriptions and characteristics	best wood WALL 140/best wood MULTI 140
Reaction to fire / EN 13501-1	Euroclass E - Thickness: 20 mm to 240 mm - density: 140 kg/m ³
Thermal resistance ((m ² .K)/W)	Defined in the CE marking in ref. to EN 13171 "Thermal insulation products for buildings" -Factory made wood fibre (WF) products
Designation Code	WF-EN13171-T5-CS(10\Y)100-TR20-WS1,0-AF75-MU3
Water absorption (partial immersion) / EN 1609	≤ 1,0 kg/m ²
Water vapour diffusion resistance factor (μ) / EN 12086	≤ 3

Descriptions and characteristics	best wood WALL 110/best wood MULTI 110
Reaction to fire / EN 13501-1	Euroclass E - Thickness: 60 mm to 240 mm - density: 110 kg/m ³
Thermal resistance ((m ² .K)/W)	Defined in the CE marking in ref. to EN 13171 "Thermal insulation products for buildings" -Factory made wood fibre (WF) products
Designation Code	WF-EN13171-T5-CS(10\Y)50-TR15-WS1,0-AF30-MU3
Water absorption (partial immersion) / EN 1609	≤ 1,0 kg/m ²
Water vapour diffusion resistance factor (μ) / EN 12086	≤ 3

Descriptions and characteristics	best wood MULTITHERM 140
Reaction to fire / EN 13501-1	Euroclass E - Thickness: 60 mm to 200 mm - density: 140 kg/m ³
Thermal resistance ((m ² .K)/W)	Defined in the CE marking in ref. to EN 13171 "Thermal insulation products for buildings" -Factory made wood fibre (WF) products
Designation Code	WF-EN13171-T5-CS(10Y)100-TR20-WS1,0-AF75-MU3
Water absorption (partial immersion) / EN 1609	≤ 1,0 kg/m ²
Water vapour diffusion resistance factor (μ) / EN 12086	≤ 3

Descriptions and characteristics	best wood MULTITHERM 110
Reaction to fire / EN 13501-1	Euroclass E - Thickness: 60 mm to 200 mm - density: 110 kg/m ³
Thermal resistance ((m ² .K)/W)	Defined in the CE marking in ref. to EN 13171 "Thermal insulation products for buildings" -Factory made wood fibre (WF) products
Designation Code	WF-EN13171-T5-CS(10\Y)50-TR10-WS1,0-AF30-MU3
Water absorption (partial immersion) / EN 1609	≤ 1,0 kg/m ²
Water vapour diffusion resistance factor (μ) / EN 12086	≤ 3

1.2.3 Fixings

1.2.3.1 Anchors for insulation products:

Product	Plate diameter (mm)	characteristic resistances in the wooden substrate (solid wood)
Anchor	≥ 30	0,133 kN

The given characteristic depends on the building and may therefore fluctuate. If the insulation product is installed on a substrate acc. to clause 2, the mechanically fixation shall be done through this substrate into the wooden frame construction (solid) with a depth of anchoring of at least 35 mm.

1.2.3.2 Staples for insulation products:

Product	Staples width (mm)	characteristic resistances in the wooden substrate (solid wood)
Staples	≥ 26	0,05 kN

If the insulation product is installed on a substrate according to clause 2, the mechanically fixation shall be done through this substrate into the wooden frame construction (solid) with a depth of anchoring of at least 30 mm.

1.2.4 Render

Rendering system strain value	mean value of cracks in warp direction (mm)	mean value of cracks in weft direction (mm)
0,3 %	$0,10 < w \leq 0,15$	$0,10 < w \leq 0,15$
0,5 %	$0,10 < w \leq 0,15$	$0,10 < w \leq 0,15$
0,8 %	$0,15 < w \leq 0,20$	$0,10 < w \leq 0,15$
1,0 %	$0,10 < w \leq 0,15$	$0,10 < w \leq 0,15$
1,5 %	$0,15 < w \leq 0,20$	$0,10 < w \leq 0,15$
2,0 %	$0,15 < w \leq 0,20$	$0,10 < w \leq 0,15$
n° of cracks	18 (mean value)	18 (mean value)

1.2.5 Glass fibre meshes

Glass fibre meshes acc. to cl. 1.2.1 mesh size between 3 mm and 6 mm	warp direction	weft direction	acceptance criteria
mean of the tensile strength in N/50mm	1.900 - 2.450	1.800 - 2.500	-
mean of the tensile strength in N/50mm after ageing	1.000 - 1.250	1.000 - 1.450	-
tearing strength after ageing in %	50 - 66	50 - 70	50
tearing strength after ageing in N/mm	20,0 - 25,0	20,0 - 29,0	20

Detailed characteristics of each glass fibre mesh given in factory control plan (FPC).

1.3 Manufacturing

The European Technical Assessment is issued for ETICS on the basis of agreed data / information, deposited with the Österreichisches Institut für Bautechnik, which identifies the ETICS that has been assessed and judged. Changes to the ETICS or production process, which could result in this deposited data/information being incorrect, shall be notified to the Österreichisches Institut für Bautechnik before the changes are introduced. The Österreichisches Institut für Bautechnik 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.

1.4 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 of performance are done taking into account general assumptions introduced in the EAD 040089-00-0404, which summarizes how information introduced in the ETA and related documents is intended to be used in the construction process and gives advice to all parties interested when normative documents are missing.

1.5 Packaging, transport and storage

The information on packaging, transport and storage is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer(s) to ensure that this information is made known to the people concerned.

1.6 Use, maintenance and repair

The finishing coat shall normally be maintained in order to fully preserve the ETICS performance. Maintenance includes at least:

- visual inspection of the ETICS
- the repairing of localized damaged areas due to accidents,
- the aspect maintenance with products adapted and compatible with the ETICS (possibly after washing or ad hoc preparation).

Necessary repairs shall be performed as soon as the need has been identified. It is important to be able to carry out maintenance as far as possible using readily available products and equipment without spoiling appearance. Only products which are compatible with ETICS shall be used.

The information on use, maintenance and repair is given in the manufacturer's technical documentation. It is the responsibility of the manufacturer(s) to ensure that this information is made known to the people concerned.

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

The ETICS are designed to give the timber frame building wall to which they are applied additional thermal insulation and protection from effects of weathering.

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

The surface for the application of ETICS can be a board substrate (wood-based panels, solid wood panels, plasterboards, gypsum bonded boards, cement bonded boards, etc.). The substrate has to be strong, dry and free of loose material. It may be necessary to protect the substrate against wetting and weathering before the application of the ETICS.

The thickness of the panels has to be superior or equal to 10 mm. The wooden based board substrate must be suitable for humid conditions as specified in EN 13986.

If the insulation layer of the ETICS is WF according to EN 13171, the insulation product can also be mounted direct to the timber frame, but it must be guaranteed that penetrating humidity has no effect on the timber frame/second insulation layer.

ETICS are non-load-bearing construction elements. They do not contribute directly to the stability of the timber frame building wall on which they are installed. The verification of the structural capacities of the wall and their suitability for the application of ETICS shall be in accordance with EAD 340308-00-0203 using calculation methods (EN 1995-1-1, Eurocode 5 Part 1-1, etc) as well as verifications by testing (EN 380, EN 594, EN 595, EN 596, etc.) where the load bearing capacity is unable to calculate.

The ETICS can contribute to the durability of a timber frame building by providing enhanced protection from the effects of weathering.

ETICS are not intended to ensure the air tightness of the timber frame building structure. The timber frame building wall as such has therefore to be airtight to:

- a) reduce the thermal transmittance of the wall
- b) avoid interstitial condensation due to convection

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

3.1 Reaction to fire

Configuration of SCHNEIDER Wärmedämmverbundsystem according to clause 1.2.1	Maximum declared organic content of the rendering system	Minimum declared flame-retardant content of the rendering system	Euroclass according to EN 13501-1: 2002
best wood Putzsystem	Base coat: 3,1 % Finishing coat: 9,9 %	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
FIXIT Putzsystem HASIT Putzsystem KREISEL Putzsystem RÖFIX Putzsystem	Base coat: 4,9 % Finishing coat: 4,9 %	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
AKURIT Putzsystem	Base coat: 4,6 % Finishing coat: 6,5 %	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
weber-Putzsystem	Base coat: ≤ 2,3% Finishing coat: ≤ 8,7%	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
Maxit Putzsystem	Base coat: ≤ 2,3% Finishing coat: ≤ 8,7%	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
villerit-Putzsystem	Base coat: 3,1 % Finishing coat 9,9 %	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
Baumit-Putzsystem	Base coat: 3,5 % Finishing coat: 9,7 %	Base coat: 0 % Finishing coat: 0 %	B – s1, d0
Knauf-Putzsystem	Base coat: 5,1 % Finishing coat: 8,4 %	Base coat: 0 % Finishing coat: < 2 %	B – s1, d0

Note: A European reference fire scenario has not been laid down for facades. In some Member States, the classification of ETICS according to EN 13501-1: 2020 might not be sufficient for the use in facades. An additional assessment of ETICS according to national provisions (e.g. on the basis of a large-scale test) might be necessary to comply with Member State regulations, until the existing European classification system has been completed.

3.2 Water absorption (capillarity test) Base coat and Rendering System

		Water absorption after 24 hours	
		after 1 h	After 24 h
Rendering systems: base coat (incl. key coat acc. to cl. 1.2.1) + finishing coats indicated hereafter:	All finishing coats of “best wood Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,22 to 0,40
	All finishing coats of “Fixit/HASIT/KREISEL/RÖFIX Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,21 to 0,42
	All finishing coats of “AKURIT Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,22 to 0,44
	All finishing coats of “weber Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,20 to 0,38
	All finishing coats of “Maxit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,22 to 0,38

		Water absorption after 24 hours	
		After 1 h	After 24 h
Rendering systems: base coat (incl. key coat acc. to cl. 1.2.1) + finishing coats indicated hereafter:	All finishing coats of “villerit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,27 to 0,37
	All finishing coats of “Baumit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,20 to 0,42
	All finishing coats of “Knauf Putzsystem” used in this system according to cl. 1.2.1 of this ETA	0,00 to 0,01	0,27 to 0,38

3.3 Watertightness

3.3.1 Moisture content and gradient

moisture content (% by mass): < 20 (< 15)
 moisture gradient (% by mass): < 3

measure point	measure height (cm)	moisture content (%)	moisture gradient (%)
F1	110	13 to 15	< 3
F2	110	11 to 14	< 3
F3	110	12 to 15	< 3
F4	110	13 to 16	< 3
F5	175	10 to 13	< 3
F6	175	12 to 15	< 3
F7	175	11 to 14	< 3
F8	175	12 to 14	< 3
F9	175	13 to 16	< 3
F10	175	12 to 15	< 3

3.3.2 Hygrothermal behaviour

The hygrothermal performance has been passed without defects.

3.3.3 Freeze/Thaw-Resistance

No performance assessed.

3.3.4 Water penetration

No performance assessed.

3.4 Impact resistance

		Single layer	Double layer
Rendering systems: base coat (incl. key coat acc. to cl. 1.2.1) + finishing coats indicated hereafter:	All finishing coats (paste) used in this system according to clause 1.2.1 of this ETA	Category II Presence of cracks: no (3J), yes (10 J) Crack Ø (mm): 10 to 57 Crack width (mm): 0,1	Category I Presence of cracks: no (3J,10 J)
	All finishing coats (powder) used in this system according to clause 1.2.1 of this ETA	Category II Presence of cracks: no (3J), yes (10 J) Crack Ø (mm): 12 to 58 Crack width (mm): 0,1	Category I Presence of cracks: no (3J,10 J)

3.5 Water vapour permeability

Rendering systems		Equivalent air thickness of the system (s_d)
	base coat incl. key coat (all 5 mm) + finishing coats (all 2 mm)	[m]
best wood Putzsystem	best wood Mineralischer Oberputz (MOP) Rillenputzstruktur / best wood Mineralischer Oberputz activDRY R	0,16 m
	best wood Mineralischer Oberputz (MOP) Modellierputzstruktur / best wood Mineralischer Oberputz activDRY Rustik	0,16 m
	bestwood Mineralischer Oberputz (MOP) Kratzputzstruktur / best wood Mineralischer Oberputz activDRY K	0,16 m
	best wood (SOP) Silikonharz Oberputz	0,21 m
Fixit/HASIT/ KREISEL/ RÖFIX Putzsystem	FIXIT 714, FIXIT 715, FIXIT 716, FIXIT 777, HASIT 252, HASIT 704 [SE 714], HASIT 705, HASIT 709 [SE 716], HASIT 715 [SE 715], HASIT 725, KREISEL 714, KREISEL 715, KREISEL 716, RÖFIX SE 714, RÖFIX 715 [SE 715], RÖFIX SE 716, RÖFIX 772	0,20 m
	FIXIT / HASIT / KREISEL / RÖFIX Silikatputz [SE 210]	0,30 m
	FIXIT / HASIT / KREISEL / RÖFIX Silikonharzputz [SE 410]	0,40 m
	FIXIT / HASIT / KREISEL / RÖFIX SiSi-Putz [SE 510]	0,30 m
AKURIT Putzsystem	AKURIT VARIOSTAR Strukturputz	0,12 m
	AKURIT RP Rustikalputz	0,34 m
	AKURIT SP Scheibenputz	
	AKURIT MR Münchner Rauputz	0,13 m
weber Putzsystem	weber.star 220 AquaBalance	0,12 m
	weber.pas 481 top	0,20 m
	weber.pas 481 AquaBalance	
	weber.pas Silikonharzputz	0,20 m
Maxit Putzsystem	Maxit silco A 9030	0,41 m
	Maxit star 220	0,16 m
villerit Putzsystem	villerit Stockputz / villerit activDRY Mineralputz K	0,16 m
	villerit Rauhputz / villerit acticDRY Mineralputz R	0,16 m
	villerit Rustikalputz / villerit activDRY Mineralputz Rustik	0,16 m
	villerit Siliconit K/R	0,21 m
	villerit Silikonharzoberputz	0,21 m
	Baumit Fascina	0,17 m
Baumit Putzsystem	Baumit SilikonTop	0,25 m
	Baumit CreativTop	0,25 m
	Baumit SilikatTop	0,19 m
	Baumit ScheibenPutz SEP	0,17 m

Rendering systems		Equivalent air thickness of the system
	base coat (all 5 mm) + finishing coats (all 2 mm)	[m]
Knauf Putzsystem	Knauf SP260 Pro	0,09
	Knauf RP240	0,09
	Knauf Noblo	0,10
	Knauf Noblo Filz	0,14
	Knauf Conni S	0,09
	Knauf 700 Pro	0,18
	Knauf Addi S	0,10
	Knauf MineralAktiv Scheibenputz	0,17
	Knauf MineralAktiv Scheibenputz dry	0,11

3.6 Bond strength between all base coats and insulation product

Substrate: WF insulation Base coats acc. to clause 1.2.1 of		Conditioning	
		Initial state [MPa]	After hygrothermal cycles [MPa]
best wood Putzsystem	Average	0,014 to 0,025 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
Fixit/HASIT/KREISEL/RÖFIX Putzsystem	Average	0,012 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
AKURIT Putzsystem	Average	0,012 to 0,026 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
weber Putzsystem	Average	0,013 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
Maxit Putzsystem	Average	0,014 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
Villerit Putzsystem	Average	0,012 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
Baunit Putzsystem	Average	0,014 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018
Knauf Putzsystem	Average	0,012 to 0,027 100% Type A	0,018 to 0,028 100% Type A
	Minimum value	0,010	0,018

Type A - failure in insulation product

3.7 Bond strength between all adhesive and insulation products

No performance assessed (NPA), because the system is not purely bonded.

3.8 Bond strength between all adhesive and substrate

No performance assessed (NPA), because the system is not purely bonded.

3.9 Fixing strength (displacement test)

No performance assessed.

3.10 Wind load resistance

3.10.1 Safety in use of mechanically fixed ETICS using anchors

3.10.1.1 Dynamic wind uplift test

The following values only apply for the combination (anchor plate characteristics) / (insulation product characteristics) mentioned in this table. All anchors which shall be used are shown in the control plan and the declaration of performance.

Anchors for which the following failure loads apply	Trade name	Anchors
	Plate diameter (mm)	≥ 30
Characteristics of the insulation product panels for which the following failure loads apply	Thickness (mm)	≥ 60
	Tensile strength perpendicular to the face (kPa)	≥ 10

The wind load resistance of the ETICS R_d is calculated as follow:

$$R_d = \frac{Q_1 \times C_s \times C_a}{m} = \frac{2,0 \text{ kPa}}{m}$$

$$R_d \geq S_d$$

Where:

R_d design resistance

S_d wind load suction

Q_1 test result

C_s statical correction factor

C_a geometric factor

m national safety factor of resistance for normal materials (partial safety factor to be chosen in function of the type of failure which occurred and the ageing of material properties concerned).

The above given loads apply for all anchors if they meet the following criteria:

- plate diameter of anchor ≥ 30 mm
- plate stiffness of anchor ≥ 0,5 kN/mm
- load resistance of anchor plate ≥ 1,0 kN

3.10.1.2 Wind load resistance of mechanically fixed ETICS

Apply to all anchors listed in the clause 3.10.1.1 mounted on the insulation panels surface			
Characteristics of best wood Wall 110/best wood MULTI 110	Thickness		≥ 60 mm
	Tensile strength perpendicular to the faces		≥ 15 kPa
Plate diameter of anchor			Ø 60 mm
Failure loads [N]	Anchors placed not at the panel joint of the insulation (Static Foam Block test in conjunction with Displacement Test)	$R_{\text{panel,DT}}$	Minimal: 368 Average: 397
	Anchors placed not at the panel joint of the insulation product (Pull-through test)	$R_{\text{panel,PT}}$	Minimal: 554 Average: 564

Apply to all anchors acc. to clause 3.12.1.1 mounted on the insulation panels surface			
Characteristics of best wood Wall 140/best wood MULTI 140	Thickness		≥ 60 mm
	Tensile strength perpendicular to the faces		≥ 20 kPa
Characteristics of best wood Wall 180/best wood MULTI 180	Thickness		≥ 40 mm
	Tensile strength perpendicular to the faces		≥ 30 kPa
Plate diameter of anchor			Ø 60 mm
Failure loads [N]	Anchors placed not at the panel joints of the insulation (Static Foam Block Test in conjunction with Displacement Test)	R _{panel,DT}	Minimal: 566 Average: 607
	Anchors placed not at the panel joints of the insulation (Pull-through test)	R _{panel,PT}	Minimal: 762 Average: 813
	Anchors placed at the panel joints (Pull-through test)	R _{joint,PT}	Minimal: 567 Average: 573

Apply to best wood Dämmstoff-Schraube H35			
Characteristics of best wood Wall 140/best wood MULTI 140	Thickness		≥ 60 mm
	Tensile strength perpendicular to the faces		≥ 20 kPa
Characteristics of best wood Wall 180/best wood MULTI 180	Thickness		≥ 40 mm
	Tensile strength perpendicular to the faces		≥ 30 kPa
Plate diameter of anchor			Ø 35 mm
Failure loads [N]	Anchors placed not at the panel joints of the insulation (Static Foam Block Test in conjunction with Displacement Test)	R _{panel,DT}	Minimal: 448 Average: 494
	Anchors placed not at the panel joints of the insulation (Spacing ≥ 15 cm to the panel joint) (Pull-through test)	R _{panel,PT}	Minimal: 471 Average: 534
	Anchors placed not at the panel joints of the insulation (Spacing 7 - 14 cm to the panel joint) (Pull-through test)	R _{joint,PT}	Minimal: 343 Average: 389

3.10.2 Safety in use of mechanically fixed ETICS using staples

3.10.2.1 Dynamic wind uplift test

The following values only apply for the combination (anchor's trade name) / (insulation panel's characteristics).

Anchors for which the following failure loads apply	Trade name	Staples
	Staples width (mm)	≥ 26
Characteristics of the insulation product panels for which the following failure loads apply	Thickness (mm)	≥ 20
	Tensile strength perpendicular to the face (kPa)	≥ 10

For all calculations the following formula shall be used:

$$R_d = \frac{2}{m}$$

$$R_d \geq S_d$$

where:

R_d : design resistance

S_d : wind load suction

m : national safety factor of resistance for normal materials (partial safety factor to be chosen in function of type of failure which occurred, and the ageing of material properties concerned).

The following values only apply for the combination (clips) / (insulation product characteristics)

- dimension of staples e.g. in accordance to national documents
- Pull-out strength of mechanical fixings in support to EN 1382 ≥ 70 N

3.10.2.2 Wind load resistance of mechanically fixed ETICS

Apply to all clips according to clause 3.10.2.1			
best wood Wall 140/best wood MULTI 140	Thickness		≥ 60 mm
	Tensile strength perpendicular to the faces		≥ 20 kPa
best wood Wall 180/best wood MULTI 180	Thickness		≥ 40 mm
	Tensile strength perpendicular to the faces		≥ 30 kPa
Clips width			27 mm
Failure loads [N]	Clips placed not at the panel joint of the insulation with a clip distance of 120 mm (Pull-through test)	$R_{\text{panel},120}$	Minimal: 313 Average: 333
	Clips placed not at the panel joint of the insulation with a clip distance of 70 mm (Pull-through test)	$R_{\text{panel},70}$	Minimal: 209 Average: 224
	Clips placed at the panel joints with a clip distance of 120 mm (Pull-through test)	$R_{\text{joint},120}$	Minimal: 198 Average: 216

3.11 Protection against corrosion

Corrosion protection of metal fasteners and clips corresponds to the requirements of the intended service class (see EN 1995-1-1 and the corresponding reference standards). For especially corrosive conditions consideration should be given to heavier hot dip coatings or stainless steel.

3.12 Thermal resistance

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

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

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

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

n : number of anchors (through insulation product) per 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 air gap at 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_c : thermal transmittance of the current part of the covered wall (excluding thermal bridges) ($W/(m^2 \cdot K)$) determined as follows:

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

Where: R_i : thermal resistance of the insulation product (according to declaration in reference to EN 13163) in ($m^2 \cdot K$)/W
 R_{render} : thermal resistance of the render (about 0.02 in ($m^2 \cdot K$)/W)
 $R_{substrate}$: thermal resistance of the substrate of the building in ($m^2 \cdot K$)/W
 R_{se} : external superficial thermal resistance in ($m^2 \cdot K$)/W
 R_{si} : internal superficial thermal resistance in ($m^2 \cdot K$)/W

The value of thermal resistance of each insulation product shall be given in the Declaration of performance 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.

3.13 Protection against noise

3.14.1 Airborne sound insulation of ETICS

No performance assessed.

3.14.2 Dynamic stiffness of insulation product

No performance assessed.

3.14.3 Air flow resistance

No performance assessed.

3.14 Bond strength after ageing

		Bond strength (mean value)
Rendering systems: base coat (incl. key coat acc. to cl. 1.2.1) + finishing coats indicated hereafter:	All finishing coats of “best wood Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “Fixit/HASIT/KREISEL/RÖFIX Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “AKURIT Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “weber Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “Maxit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “villerit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “Baumit Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product
	All finishing coats of “Knauf Putzsystem” used in this system according to cl. 1.2.1 of this ETA	< 0,08 MPa but failure into insulation product

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

According to EAD 040083-00-0404 the applicable European legal act is: 97/556/EC as amended by 2001/596/EC.

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**

In order to help the Notified Body to make an evaluation of conformity, the Technical Assessment Body issuing the ETA shall supply the information detailed below. This information together with the requirements given in EC Guidance Paper B will generally form the basis on which the factory production control (FPC) is assessed by the Notified Body.

This information shall initially be prepared or collected by the Technical Assessment Body and shall be agreed with the manufacturer. The following gives guidance on the type of information required:

1) The ETA

Where confidentiality of information is required, this ETA makes reference to the manufacturer's technical documentation which contains such information.

2) Basic manufacturing process

The basic manufacturing process is described in sufficient detail to support the proposed FPC methods.

The different components of ETICS are generally manufactured using conventional techniques. Any critical process or treatment of the components which affects performance are highlighted in the manufacturer's documentation.

3) Product and materials specifications

The manufacturer's documentation includes:

- detailed drawings (possibly including manufacturing tolerances),
- incoming (raw) materials specifications and declarations,
- references to European and/or international standards,
- technical data sheets.

4) Control Plan (as a part of FPC)

The manufacturer and the Österreichisches Institut für Bautechnik have agreed a Control Plan which is deposited with the Österreichisches Institut für Bautechnik in documentation which accompanies the ETA. The Control Plan specifies the type and frequency of checks/tests conducted during production and on the final product. This includes the checks conducted during manufacture on properties that cannot be inspected at a later stage and for checks on the final product.

Products not manufactured by the ETICS manufacturer shall also be tested according to the Control Plan. It must be demonstrated to the Notified Body that the FPC system contains elements securing that the ETICS manufacturer takes products conforming to the Control Plan from his supplier(s).

Where materials/components are not manufactured and tested by the supplier in accordance with agreed methods, then where appropriate they shall be subject to suitable checks/tests by the ETICS manufacturer before acceptance.

In cases where the provisions of the European Technical Assessment and its Control Plan are no longer fulfilled, the Notified Body shall withdraw the certificate and inform the Österreichisches Institut für Bautechnik without delay.

Issued in Vienna on 23.05.2025
by Österreichisches Institut für Bautechnik

The original document is signed by

Thomas Rockenschaub
Deputy Managing Director