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General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011:	**Technický a skúšobný ústav stavebný, n. o.**
Trade name of the construction product	Baumit StarSystem EPS
Product family to which the construction product belongs	Product area code: 4 External Thermal Insulation Composite Systems with rendering on expanded polystyrene (EPS) for the use as external insulation to walls of buildings
Manufacturer	Baumit Beteiligungen GmbH Wopfing 156 A-2754 Waldegg Austria http://www.baumit.at
Manufacturing plant	Baumit Beteiligungen GmbH Wopfing 156 A-2754 Waldegg Austria
This European Technical Assessment contains	78 pages including 4 annexes which form an integral part of this assessment.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	ETAG 004, edition June 2013, used as European Assessment Document (EAD).
This version replaces	ETA-12/0378 with validity from 28.06.2013 to 30.09.2017

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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 boards to be bonded or 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 part of the kit.

1.2 Composition of the ETICS

Table 1 – Composition of the ETICS

	Components (see Annex 1 for further description, characteristics and performances of the components)	**Coverage** kg/m²	**Thickness** mm
Insulation materials with associated methods of fixing	Bonded ETICS (partially or fully bonded) with supplementary anchors. According to ETA-holder´s prescription the minimal bonded surface shall be at least 20 % (see Table 41 to 43). National application documents shall be taken into account.		
	• **Insulation products:** Expanded polystyrene boards Baumit ProTherm (100)/Baumit Fassadendämmplatte EPS-F (100) Baumit ProTherm (120)/Baumit Fassadendämmplatte EPS-F (120) Baumit ProTherm (150)/Baumit Fassadendämmplatte EPS-F (150) Baumit StarTherm (100)/Baumit Fassadendämmplatte EPS-F plus (100) Baumit StarTherm (120)/Baumit Fassadendämmplatte EPS-F plus (120) Baumit StarTherm (150)/Baumit Fassadendämmplatte EPS-F plus (150)	/	20 to 300
	• **Adhesives (type of cement –see page 10)**:		
	- **Baumit StarContact/Baumit KlebeSpachtel** Preparation: mixing of 6 l to 7 l water/25 kg powder Composition: mineral powder, grey cement of types 4,5,6,7 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,5 (powder)	
	- **Baumit StarContact light/Baumit StarContact KBM-Fix/Baumit KlebeSpachtel KBM-Fix** Preparation: mixing of 9 l to 10 water/25 kg powder Composition: white cement of type 2, lime, mineral light aggregates, silicate sands, additives	2,5 to 4,0 (powder)	
	- **Baumit StarContact white/Baumit StarContact KBM/ Baumit KlebeSpachtel KBM** Preparation: mixing of 6 l water/25 kg powder Composition: mineral powder, white cement of types 1,2,3 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,0 (powder)	
	- **Baumit NivoFix/Baumit PaneloFix/Baumit WDVS-Kleber** Preparation: mixing of 7 l to 8 l water/25 kg powder Composition: mineral powder, grey cement of types 4,5,6,7 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,0 (powder)	
	- **Baumit StarContact forte/Baumit DiskschichtKlebespachtel** Preparation: mixing of 6 l to 8 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives	5,0 (powder)	
	- **Baumit SupraFix/Baumit SupraKleber** Preparation: mixing of 4,5 l to 5,5 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,0 (powder)	

	Baumit StarContactSpeed/Baumit SpeedContact/Baumit SpeedKlebeSpachtel Preparation: mixing of 5,5 l to 6 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives • **Supplementary anchors** See Annex 2 for list of anchors including special anchor Baumit StarTrack/Baumit KlebeAnker and their product characteristics.	2,6 to 5,5 (powder)	

	Mechanically fixed ETICS with anchors and supplementary adhesive (see Clause 2.2.8.3) for possible associations EPS/anchors). According to ETA-holder´s prescription the minimal bonded surface shall be at least 20 % (see Table 41 to 43). National application documents shall be taken into account.		
	• **Insulation products** Expanded polystyrene boards Baumit ProTherm (100)/Baumit Fassadendämmplatte EPS-F (100) Baumit ProTherm (120)/Baumit Fassadendämmplatte EPS-F (120) Baumit ProTherm (150)/Baumit Fassadendämmplatte EPS-F (150) Baumit StarTherm (100)/Baumit Fassadendämmplatte EPS-F plus (100) Baumit StarTherm (120)/Baumit Fassadendämmplatte EPS-F plus (120) Baumit StarTherm (150)/Baumit Fassadendämmplatte EPS-F plus (150)		50 to 300
	• **Supplementary adhesives (type of cement – see page 10)**		
	- **Baumit StarContact/Baumit KlebeSpachtel** Preparation: mixing of 6 l to 7 l water/25 kg powder Composition: mineral powder, grey cement of types 4/5/6/7 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,5 (powder)	/
	- **Baumit StarContact light/Baumit StarContact KBM-Fix/Baumit KlebeSpachtel KBM-Fix** Preparation: mixing of 9 l to 10 l water/25 kg powder Composition: white cement of type 2, lime, mineral light aggregates, silicate sands, additives	2,5 to 4,0 (powder)	
	- **Baumit StarContact white/Baumit StarContact KBM/ Baumit KlebeSpachtel KBM** Preparation: mixing of 6 l water/25 kg powder Composition: mineral powder, white cement of types 1/2/3 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,0 (powder)	
	- **Baumit NivoFix/Baumit PaneloFix/Baumit WDVS-Kleber** Preparation: mixing of 7 l to 8 l water/25 kg powder Composition: mineral powder, grey cement of types 4/5/6/7 base with silica sand and lime stone, dispersion powder, additives	4,0 to 5,0 (powder)	
	Baumit StarContact forte/Baumit DiskschichtKlebespachtel Preparation: mixing of 6 l to 8 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives	5,0 (powder)	
	- **Baumit SupraFix/Baumit SupraKleber** Preparation: mixing of 4,5 l to 5,5 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives	2,5 to 5,0 (powder)	
	- **Baumit StarContactSpeed/Baumit SpeedContact/Baumit SpeedKlebeSpachtel** Preparation: mixing of 5,5 l to 6 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives	2,6 to 5,0 (powder)	
	• **Anchors** See Annex 2 for list of anchors including special anchor Baumit StarTrack/Baumit KlebeAnker and their product characteristics.		

Base coats used onto insulation product of both EPS-EN 13163-TR100 and EPS-EN 13163-TR120 and EPS-EN 13163-TR150	• **Baumit StarContact/Baumit KlebeSpachtel** Preparation: mixing of 6 l to 7 l water/25 kg powder Composition: mineral powder, grey cement of types 4,5,6,7 base with silica sand and lime stone, dispersion powder, additives Applicability: always with key coat	4,0 to 5,0 (powder)	3,0 to 4,0
	• **Baumit StarContact light/Baumit StarContact KBM-Fix/Baumit KlebeSpachtel KBM-Fix** Preparation: mixing of 9 l to 10 l water/25 kg powder Composition: white cement of type 2, lime, mineral light aggregates, silicate sands, additives Applicability: always with key coat	4,0 to 5,0 (powder)	3,0 to 4,0
	• **Baumit StarContact white/Baumit StarContact KBM/ Baumit KlebeSpachtel KBM** Preparation: mixing of 6 l water/25 kg powder Composition: mineral powder, white cement of types 1,2,3 base with silica sand and lime stone, dispersion powder, additives Applicability: optional with or without key coat	4,0 to 5,0 (powder)	3,0 to 4,0
	• **Baumit StarContactSpeed/Baumit SpeedContact/Baumit SpeedKlebeSpachtel** Preparation: mixing of 5,5 l to 6 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives Applicability: always with key coat	4,0 to 5,0 (powder)	3,0 to 4,0
Base coat used only onto insulation product of EPS-EN 13163-TR150	• **Baumit StarContact forte/Baumit DiskschichtKlebespachtel** Preparation: mixing of 6 l to 8 l water/25 kg powder Composition: mineral powder, grey cement of type 4 base with silica sand and lime stone, dispersion powder, additives Applicability: always with key coat	5,0 to 8,0 (powder)	5,0
	• **Baumit EasyFlex/Baumit Spachtelmasse zementfrei/ Baumit Spachtelmasse zementfrei SPM58** Preparation: ready to use Composition: organic binders, fibres, sands, additives Applicability: optional with or without key coat	3,0 to 3,5 (paste)	3,0 to 4,0
	• **Baumit PowerFlex/Baumit FaserSpachtel/Baumit SilverFlex** Preparation: ready to use Composition: organic binders, aramid fibres, sands, additives Applicability: optional with or without key coat	3,0 to 3,5 (paste) 5,0 to 6,05 (paste)	3,0 to 4,0 5,0
Glass fibre meshes	• Standard glass fibre mesh: (glass fibres mesh with mesh size approx. 4 mm and 4 mm, mass per unit area: min. 145 g/m^2): **Baumit StarTex /Baumit Textilglasgitter/Baumit ProTex**	/	/
	• Standard glass fibre mesh: (glass fibres mesh with mesh size approx. 3,5 mm and 3,8 mm, mass per unit area: min. 160 g/m^2): **Baumit StarTex (160)**	/	/
Key coats	• Baumit UniPrimer/Baumit UniversalGrund ready to use pigmented liquid	0,20 to 0,25	
	• Baumit PremiumPrimer/Baumit Premium Primer DG27/ Baumit DecorGrundierung DG 27 ready to use pigmented liquid	0,25	

Finishing coats	• Ready to use pastes – silicate binder Baumit SilikatTop/Baumit SilikatPutz (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,2	
	• Ready to use pastes – silicate binder Baumit NanoporTop/Baumit NanoporPutz (particles size 1,5/2,0/3,0 mm), floated structure	2,5 to 4,2	
	• Ready to use pastes – silicone binder Baumit SilikonTop/Baumit SilikonPutz (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,2	
	• Ready to use pastes – silicone binder Baumit SiliporTop/Baumit SiliporPutz (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,2	
	• Ready to use pastes – acrylic binder Baumit GranoporTop/Baumit GranoporPutz (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,1	
	• Ready to use pastes – acrylic binder Baumit StyleTop/Baumit ArtlineTop/Baumit ArtlinePutz (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,1	
	• Powder product mixed with water – acrylic binder Baumit Fascina Special/Baumit Edelputz Spezial (particles size 1,0/2,0/3,0/4,0 mm), floated structure Preparation: mixing of 6,0 l to 7,5 l water/25 kg powder Composition: mineral powder, grey cement of type 7 base with silica sand, dispersion powder, additives	2,2 to 5,5	
	• Ready to use pastes – silicone and acrylic binder Baumit CreativTop (particles size 1,0 (Fine)/1,5 (Vario)/3,0 (Trend)/ 4,0 mm (Max)), modelling and floated structure	2,9 to 6,2	
	• Ready to use pastes – silicone and silicate binder Baumit StellaporTop (particles size 1,5/2,0/3,0 mm), floated structure (particles size 2,0/3,0 mm), ribbed structure	2,5 to 4,2	
	• Ready to use pastes – acrylic binder Baumit MosaikTop (particles size 2,0 mm), floated structure	5,5	
	• Ready to use pastes – acrylic binder Baumit MosaikSuperfine (particles size 0,8 mm), floated structure	2,7	
	• Ready to use pastes – silicone and acrylic binder Baumit FineTop/Baumit SilikonFine/Baumit UniTopFine (particles size 1,0 mm), floated structure	2,0	
	• Ready to use pastes – silicone and acrylic binder Baumit NanoporFine/Baumit NanoporTop Fine (particles size 1,0 mm), floated structure	2,0	
	• Ready to use pastes – acrylic binder Baumit GranoporFine (particles size 1,0 mm), floated structure	2,0	

Decorative coats/ plasters*	• Ready to use pastes – silicone and acrylic binder Baumit CreativTop Silk / Baumit Creativ Top S-Fine (particles size 0,2 mm), floated structure	1,8 to 4,0	0,5 to 2,0
	• Ready to use pastes – silicone and acrylic binder Baumit CreativTop Pearl (particles size 0,5 mm), floated structure	1,4	0,5 to 1,0
	• Ready to use pastes – silicone binder Baumit FillTop/Baumit UniTop Fill (particles size 0,5 mm), floated structure	1,4	0,5 to 1,0
	* To be used optionally with all types of finishing coats mentioned above.		
Decorative coats/paints**	• Ready to use paint – silicate binder Baumit NanoporColor/Baumit NanoporFarbe	0,5	
	• Ready to use paint – silicone binder Baumit StarColor	0,5	
	• Ready to use paint – silicone binder Baumit SilikonColor/Baumit Silikon Farbe	0,5	
	• Ready to use paint – silicate binder Baumit SilikatColor/Baumit SilikatFarbe	0,5	
	• Ready to use paint – acrylic binder Baumit StyleColor/Baumit ArtlineFarbe	0,5	
	• Ready to use paint – acrylic binder Baumit ProColor	0,5	
	• Ready to use paint – acrylic binder Baumit GranoporColor/Baumit GranoporFarbe	0,5	
	• Ready to use paint – acrylic binder Baumit Metallic/Baumit Artline Metallic	0,5	
	• Ready to use paint – silicate binder Baumit Lasur/Baumit Artline Lasur	0,5	
	• Ready to use paint – silicate binder Baumit Finish/Baumit Artline Finish	0,5	
	• Ready to use paint – silicate binder Baumit Glitter/Baumit Artline Glitter	0,5	
	** To be used optionally alone with all types of finishing coats mentioned above or with decorative plasters applying on finishing coats.		
Ancillary materials	Descriptions in accordance with 3.2.2.5 of the ETAG 004. Remain under the ETA-holder responsibilities.		

Cement types:

Cement Type 1	CEM I 52,5N white
Cement Type 2	CEM I 52,5R white
Cement Type 3	CEM I 42,5R white
Cement Type 4	CEM II/A-S 42,5R grey
Cement Type 5	CEM I 42,5R grey
Cement Type 6	CEM II/A-LL 42,5R grey
Cement Type 7	CEM I 52,5N grey

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). The characteristics of the walls shall be verified prior to use of the ETICS, especially regarding conditions for reaction to fire classifications and for fixing of the ETICS either by bonding or mechanically. 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 airtightness 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 004) and shall be done in accordance with the 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 Clauses 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 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.

The ETICS belong to Category S/W2, according to EOTA Technical Report No. 034.

2.2 Manufacturing

The European Technical Assessment is issued for the ETICS on the basis of agreed data/information, deposited with the Technical Assessment Body "Building Testing and Research Institute", which identified the ETICS that has been assessed and judged. Changes to the ETICS or production process, which could results in this deposited data/information being incorrect, shall be notified to the Technical Assessment Body Technický a skúšobný ústav stavebný, n. o. (TSÚS) before the changes are introduced. The Technical Assessment Body Technický a skúšobný ústav stavebný, n. o. 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 alternations to the ETA, shall be necessary.

2.3 Design and installation

The installation instructions including special installation techniques and provisions for the qualifications 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 7.1 and 7.2 of ETAG 004 used as EAD, which summarized 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.

2.4 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 know to the concerned people.

2.5 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 should 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 the ETICS shall be used.

The information on use, maintenance and repair is given in the manufacturer's technical documentation. It is responsibility of the manufacturer(s) to ensure that these provisions are easily accessible to the concerned people.

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

3.0 The performances of the kit as described in this clause are valid provided that the components of the kit comply with Annexes 1 to 3.

3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

3.2 Safety in case of fire (BWR 2)

3.2.1 Reaction to fire (ETAG 004 – Clause 5.1.2.1, EN 13501-1)

The reaction to fire was determined according to ETAG 004, Clause 5.1.2.1. The product as defined under Clause 1.1 reached the following classification stated in Tables 1 to Table 5.

Table 1 – Classification of reaction to fire for ETICS

Configuration 1	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhesives: Baumit StarContact Baumit StarContact light Baumit StarContact white Baumit NivoFix Baumit StarContact forte **Baumit SupraFix** Baumit StarContact Speed	Base coat: 13,7 % ± 0,6 abs Finishing coat: (10,9 ± 10) % rel. Decorative coat (plaster): (9,1 ± 10) % rel. Decorative coat (Paint): (20,9 ± 10) % rel.	EPS: no information Base coats (Baumit EasyFlex, Baumit PoweFlex): 10 % Other base coats: 0 % Finishing coat: 0 %	B-s2, d0
EPS (EPS-EN 13163-TR150) thickness: 50 mm to 200 mm Color: grey, λ_D=0,031 W/(m.k) reaction to fire: E density 15,7 kg/m^2			
Base coats: Baumit StarContact Baumit StarContact light Baumit StarContact white Baumit StarContact forte Baumit StarContact Speed Baumit EasyFlex **Baumit PowerFlex**			
Glass fibre mesh: Baumit StarTex **Baumit StarTex (160)** tested in configuration mass per unit area: from 145 g/m^2 ± 8 % to 160 g/m^2 ± 8%			
Key coats: Baumit UniPrimer **Baumit PremiumPrimer**			
Finishing coats: Baumit SilikatTop Baumit NanoporTop Baumit SilikonTop Baumit Silipor Top Baumit GranoporTop **Baumit StyleTop** Baumit Fascina Special Baumit CreativTop Baumit StellaporTop Baumit MosaikTop Baumit MosaikSuprefine Baumit FineTop Baumit NanoporFine Baumit GranopoFine			
Decorative coats/plasters: Baumit CreativTop Silk Baumit CreativTop Pearl **Baumit FillTop**			

Decorative coats/paints: Baumit NanoporColor Baumit StarColor Baumit SilikonColor Baumit SilikatColor Baumit StyleColor Baumit ProColor Baumit GranoporColor Baumit Metallic Baumit Lasur Baumit Finish **Baumit Glitter**			

Table 2 – Classification of reaction to fire for ETICS

Configuration 2	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhesives: Baumit StarContact Baumit StarContact light Baumit StarContact white Baumit NivoFix Baumit StarContact forte **Baumit SupraFix** Baumit StarContact Speed	Base coat: 13,7 % ± 0,6 abs Finishing coat: (10,9 ± 10) % rel. Decorative coat (plaster): (9,1 ± 10) % rel. Decorative coat (Paint): (20,9 ± 10) % rel.	EPS: no information Base coats (Baumit EasyFlex, Baumit PoweFlex): 10 % Other base coats: 0 % Finishing coat: 0 %	B-s1, d0
EPS (EPS-EN 13163-TR150) thickness: 50 mm to 200 mm Color: grey, λ_D=0,031 W/(m.k) reaction to fire: E density 15,7 kg/m^2			
Base coats: Baumit StarContact Baumit StarContact light Baumit StarContact white Baumit StarContact forte Baumit StarContact Speed Baumit EasyFlex **Baumit PowerFlex**			
Glass fibre mesh: Baumit StarTex **Baumit StarTex (160)** tested in configuration mass per unit area: from 145 g/m^2 ± 8 % to 160 g/m^2 ± 8%			
Key coats: Baumit UniPrimer **Baumit PremiumPrimer**			
Finishing coats: **Baumit CreativTop Max** (4,0 mm grain size)			
Decorative coats/plasters: Baumit CreativTop Silk Baumit CreativTop Pearl **Baumit FillTop**			

Decorative coats/paints: Baumit NanoporColor Baumit StarColor Baumit SilikonColor Baumit SilikatColor Baumit StyleColor Baumit ProColor Baumit GranoporColor Baumit Metallic Baumit Lasur Baumit Finish **Baumit Glitter**			

Table 3 – Classification of reaction to fire for ETICS

Configuration 3	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhesives: Baumit StarContact Baumit StarContact KBM-Fix Baumit StarContact white Baumit NivoFix	Base coat: 3,3 % ± 0,6 abs Finishing coat: (10,9 ± 10) %	Base coat: 0 % Finishing coat: 0 %	B-s1, d0
EPS 70 (EPS-EN 13163-TR100) thickness from 50 mm to 200 mm reaction to fire: E density (13,8 ± 0,2) kg/m^2			
Base coats: Baumit StarContact Baumit StarContact KBM-Fix Baumit StarContact white			
Glass fibre mesh: Baumit TextilglassGitter mass per unit area: 145 g/m^2 ± 8 %			
Key coats: Baumit UniversalGrund Baumit PremiumPrimer			
Finishing coats: Baumit SilikatTop Baumit NanoporTop Baumit SilikonTop Baumit Silipor Top Baumit GranoporTop Baumit StyleTop Baumit Fascina Special Baumit CreativTop (types Fine and S-Fine)			

Table 4 – Classification of reaction to fire for ETICS

Configuration 4	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhesives: Baumit StarContact Baumit StarContact KBM-Fix Baumit StarContact white Baumit NivoFix Baumit StarContact Forte	Base coat: 2,8 % ± 0,6 abs Finishing coat: (10,9 ± 10) %	Base coat: 0 % Finishing coat: 0 %	(No performance assessed)
EPS from 50 mm to 200 mm			
Base coat: **Baumit StarContact forte thickness 5 mm**			
Key coats: Baumit UniversalGrund Baumit PremiumPrimer			
Finishing coats: Baumit SilikatTop Baumit NanoporTop Baumit SilikonTop Baumit Silipor Top Baumit GranoporTop Baumit StyleTop Baumit Fascina Special Baumit CreativTop			

Table 5 – Classification of reaction to fire for ETICS

Configuration 5	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhesives: Baumit StarContact Baumit StarContact KBM-Fix Baumit StarContact white Baumit NivoFix	Base coat: 9,8 % ± 0,6 abs Finishing coat: (10,9 ± 10) %	Base coat: 0 % Finishing coat: 0 %	B-s1, d0
EPS from 50 mm to 200 mm			
Base coat: Baumit SilverFlex Baumit EasyFlex			
Key coats: Baumit UniversalGrund Baumit PremiumPrimer			
Finishing coats: Baumit SilikatTop Baumit NanoporTop Baumit SilikonTop Baumit Silipor Top Baumit GranoporTop Baumit StyleTop Baumit Fascina Special Baumit CreativTop			

Mounting and fixing:

The assessment of reaction to fire for configuration 1 is based on tests with maximal insulation layer thickness of SBI/200 mm, STN EN ISO 11925-2 and insulation material density 15,7 kg/m^2 and a render system with maximum organic content (13,7 % ± 0,6 abs) for base coat and (10,9 ± 10) % rel. for finishing coat and (9,1 ± 10) % rel. for decorative coat (plaster) and (20,9 ± 10) % rel. for decorative coat (paint) and thicknesses of grain sizes of finishing coats 1,0 mm and 4,0 mm.

The assessment of reaction to fire for configuration 2 is based on tests with maximal insulation layer thickness of SBI/200 mm, STN EN ISO 11925-2 and insulation material density 15,7 kg/m^2 and a render system with maximum organic content (13,7 % ± 0,6 abs) for base coat and (10,9 ± 10) % rel. for finishing coat Baumit CreativTop Max and (9,1 ± 10) % rel. for decorative coat (plaster) and (20,9 ± 10) % rel. for decorative coat (paint) and thicknesses of grain sizes of finishing coat Baumit CreativTop Max 4,0 mm.

The assessment of reaction to fire for configuration 3 is based on tests with maximal insulation layer thickness of SBI/200 mm, STN EN ISO 11925-2 and insulation material density (13,8 ± 0,2) kg/m^2 and a render system with maximum organic content (3,3 % ± 0,6 abs) for base coat and (10,9 ± 10) % for finishing coat and thickness 3,0 mm.

The assessment of reaction to fire for configuration 5 is based on tests with maximal insulation layer thickness of SBI/200 mm, STN EN ISO 11925-2 and insulation material density 17,6 kg/m^2 and a render system with maximum organic content (9,8 % ± 0,6 abs) for base coat and (10,9 ± 10) % for finishing coat and thicknesses 1, 5 mm and 4,0 mm.

For the SBI configuration this ETICS is mounted directly to a calcium silicate plasterboard substrate of reaction to fire classification A2-s1, d0 with a minimum density of 800 kg/m^2 ± 10 kg/m^2.

The installation of the ETICS was carried out by the manufacturer (holder of assessment) following the manufacturer's specifications (instruction sheet) using a single layer of the glass fibre mesh all over the test specimen (no overlapping glass fibre mesh).

The test specimens were prefabricated and did not include any joints. The panel edges were rendered except the upper and bottom edges.

Anchors were not included in the tested ETICS as they have no influence on the test result.

Please note that in some member states the classification on the basis of SBI test is not accepted. Additional tests might be required e.g. large scale tests to demonstrate compliance with a member state's fire regulation.

Further the edges of the ETICS always have to be protected against fire.

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 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.

3.3 Hygiene, health and environment (BWR 3)

3.3.1 Water absorption (ETAG 004 – Clause 5.1.3.1)

Table 6 – Water absorption of base coats

		Water absorption after 24 hours	
		< 0,5 kg/m²	≥ 0,5 kg/m²
Base coat	Baumit StarContact (3 mm)	x	
	Baumit StarContact light (3 mm)	x	
	Baumit StarContact white (3 mm) Baumit StarContact white (6 mm)	x	
	Baumit StarContact forte (5 mm)	x	
	Baumit StarContact Speed (3 mm)	x	
	Baumit EasyFlex (3 mm)	x	
	Baumit PowerFlex (3 mm)	x	

Table 7 – Water absorption of rendering coats

Base coat Baumit StarContact (thickness 3 mm)		Water absorption after 24 hours	
		< 0,5 kg/m²	≥ 0,5 kg/m²
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 8 – Water absorption of rendering coats

Base coat Baumit StarContact light (thickness 3 mm)		**Water absorption after 24 hours**	
		< 0,5 kg/m²	**≥ 0,5 kg/m²**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 9 – Water absorption of rendering coats

Base coat Baumit StarContact white (thickness 3 mm)		**Water absorption after 24 hours**	
		< 0,5 kg/m²	**≥ 0,5 kg/m²**
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 10 – Water absorption of rendering coats

Base coat Baumit StarContact forte (thickness 5 mm)		**Water absorption after 24 hours**	
		< 0,5 kg/m²	**≥ 0,5 kg/m²**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 11 – Water absorption of rendering coats

Base coat Baumit StarContact Speed (thickness 3 mm)		**Water absorption after 24 hours**	
		< 0,5 kg/m²	**≥ 0,5 kg/m²**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 12 – Water absorption of rendering coats

Base coat Baumit EasyFlex (thickness 3 mm)		**Water absorption after 24 hours**	
		< 0,5 kg/m²	**≥ 0,5 kg/m²**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

Table 13 – Water absorption of rendering coats

Base coat Baumit PowerFlex (thickness 3 mm)		Water absorption after 24 hours	
		< 0,5 kg/m²	≥ 0,5 kg/m²
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	x	
	Baumit NanoporTop	x	
	Baumit SilikonTop	x	
	Baumit SiliporTop	x	
	Baumit GranoporTop	x	
	Baumit StyleTop	x	
	Baumit Fascina Special	x	
	Baumit CreativTop	x	
	Baumit StellaporTop	x	
	Baumit MosaikTop	x	
	Baumit Mosaik Superfine	x	
	Baumit FineTop	x	
	Baumit NanopoFine	x	
	Baumit GranoporFine	x	

3.3.2 Watertightness (ETAG 004 – Clause 5.1.3.2)

3.3.2.1 Hydrothermal behaviour (ETAG 004 – Clause 5.1.3.2.1)

Hygrothermal cycles have been performed on a rig. None of the following defects occurred during the testing:

- blistering or peeling of any finishing coat;
- failure or cracking associated with joints between insulation product boards or profiles fitted with ETICS;
- detachment of render coat;
- cracking allowing water penetration to the insulation layer (normally not bigger than 0,2 mm).

The ETICS is so assessed resistant to hygrothermal cycles, it means ETICS passed the test without defects.

3.3.2.2 Freeze-thaw behaviour (ETAG 004 – Clause 5.1.3.2.2)

- The water absorptions of all base coats used in this ETICS are less than 0,5 kg/m² after 24 hours but nevertheless the corresponding configuration(s) of the ETICS have been assessed as **freeze/thaw resistant** according to simulated method (5.1.3.2.2 of ETAG 004).
- The water absorptions of all rendering systems are less than 0,5 kg/m² after 24 hours and so **the corresponding configuration(s) of the ETICS are assessed as freeze/thaw resistant.**

3.3.3 Impact resistance (ETAG 004 – Clause 5.1.3.3)

The resistance to hard body impacts (3 Joules and 10 Joules) leads to the following use categories.

Table 14 – Use categories for ETICS according to impact resistance

Baumit StarContact + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	Category II	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category III	Category II
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category II	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category III	Category II
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

Table 15 – Use categories for ETICS according to impact resistance

Baumit StarContact light + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	Category II	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category III	Category II
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category II	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category III	Category II
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

Table 16 – Use categories for ETICS according to impact resistance

Baumit StarContact white + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	Category II	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category III	Category II
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category II	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category III	Category II
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

Table 17 – Use categories for ETICS according to impact resistance

Baumit StarContact forte (thickness 5 mm) + EPS board (EN 13163-TR100)		**Single standard mesh**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	Category I
	Baumit NanoporTop	
	Baumit SilikonTop	
	Baumit SiliporTop	
	Baumit GranoporTop	
	Baumit StyleTop	
	Baumit Fascina Special 1,0 mm	Category II
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category I
	Baumit CreativTop	
	Baumit StellaporTop	
	Baumit MosaikTop	
	Baumit Mosaik Superfine	Category II
	Baumit FineTop	
	Baumit NanopoFine	
	Baumit GranoporFine	

Table 18 – Use categories for ETICS according to impact resistance

Baumit StarContact Speed (thickness 3 mm) + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	Category II	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category III	Category II
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category II	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category III	Category II
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

Table 19 – Use categories for ETICS according to impact resistance

Baumit EasyFlex (thickness 3 mm) + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	Category I	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category II	Category I
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category I	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category II	Category I
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

Table 20 – Use categories for ETICS according to impact resistance

Baumit SilverFlex (thickness 3 mm) + EPS board (EN 13163-TR100)		**Single standard mesh**	**Double standard mesh**
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	Category I	Category I
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special 1,0 mm	Category II	Category I
	Baumit Fascina Special 2,0 mm to 4,0 mm	Category I	Category I
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit Mosaik Superfine	Category II	Category I
	Baumit FineTop		
	Baumit NanopoFine		
	Baumit GranoporFine		

3.3.4 Water vapour permeability (ETAG 004 – Clause 5.1.3.4)

Table 21 – Water vapour permeability of rendering systems

Baumit StarContact (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,538), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,23), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,59), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,47), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,24), THR is 6 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,38), THR is 7 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,54), THR is 6 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,34), THR is 4 mm

	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,24), THR is 4 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,35), THR is 4 mm

Table 22 – Water vapour permeability of rendering systems

Baumit StarContact light (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,53), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,23), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,57), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,46), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,24), THR is 6 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,38), THR is 7 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,54), THR is 6 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,34), THR is 4 mm
	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,24), THR is 4 mm

	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,35), THR is 4 mm

Table 23 – Water vapour permeability of rendering systems

Baumit StarContact white (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,50), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,20), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,55), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,63), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,43), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,63), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,21), THR is 6 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,35), THR is 7 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,50), THR is 6 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,41), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,40), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,31), THR is 4 mm

	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,21), THR is 4 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,43), THR is 4 mm

Table 24 – Water vapour permeability of rendering systems

Baumit StarContact forte (thickness 5 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,59), THR is 8 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,28), THR is 8 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,59), THR is 8 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,68), THR is 8 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,49), THR is 8 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,69), THR is 8 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,29), THR is 8 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,43), THR is 9 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,59), THR is 8 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,47), THR is 7 mm

	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,47), THR is 7 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,37), THR is 6 mm
	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,29), THR is 6 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,4), THR is 6 mm

Table 25 – Water vapour permeability of rendering systems

Baumit StarContact Speed (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,54), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,23), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,58), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,46), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,24), THR is 6 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,38), THR is 7 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,54), THR is 6 mm

	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,44), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,34), THR is 4 mm
	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,24), THR is 4 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,35, THR is 4 mm

Table 26 – Water vapour permeability of rendering systems

Baumit EasyFlex (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,80), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,50), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,84), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,92), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,73), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,93), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,51), THR is 6 mm
	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,65), THR is 7 mm

	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,80), THR is 6 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,70), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,70), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,61), THR is 4 mm
	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,51), THR is 4 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,73, THR is 4 mm

Table 27 – Water vapour permeability of rendering systems

Baumit PowerFlex (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,95), THR is 6 mm
	Baumit NanoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,65), THR is 6 mm
	Baumit SilikonTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,10), THR is 6 mm
	Baumit SiliporTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 1,08), THR is 6 mm
	Baumit GranoporTop	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,88), THR is 6 mm
	Baumit StyleTop	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,08), THR is 6 mm
	Baumit Fascina Special	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,66), THR is 6 mm

	Baumit CreativTop	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,80), THR is 7 mm
	Baumit StellaporTop	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,95), THR is 6 mm
	Baumit MosaikTop	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,86), THR is 5 mm
	Baumit MosaikSuperfine	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,86), THR is 5 mm
	Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit FineTop, floated structure, particles size 1,0 mm: 0,76), THR is 4 mm
	Baumit NanoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,66), THR is 4 mm
	Baumit GranoporFine	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,77, THR is 4 mm

Table 28 – Water vapour permeability of rendering systems

Baumit StarContact (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats + decorative coats indicated hereafter:	Baumit SilikatTop Baumit SilikatColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,60), THR is 64 mm
	Baumit SilikatTop Baumit StarColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,80), THR is 64 mm
	Baumit SilikatTop Baumit ProColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,668), THR is 64 mm
	Baumit NanoporTop Baumit Nanopor Color	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,25), THR is 64 mm
	Baumit SilikonTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,64), THR is 64 mm
	Baumit SilikonTop K1,5 Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 1,5 mm: 0,74), THR is 47 mm

	Baumit SiliporTop Baumit FillTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,91), THR is 67 mm
	Baumit GranoporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,53), THR is 64 mm
	Baumit StyleTop Baumit StyleColor	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,74), THR is 64 mm
	Baumit StyleTop Baumit Metallic	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 63 mm
	Baumit StyleTop Baumit Finish	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,67), THR is 63 mm
	Baumit StyleTop Baumit Finish Baumit Lasur	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 65 mm
	Baumit Fascina Special Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,26), THR is 64mm
	Baumit CreativTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,45), THR is 74 mm
	Baumit StellaporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,60), THR is 64mm
	Baumit MosaikTop Baumit Glitter	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,83), THR is 60mm
	Baumit NanoporFine Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,26), THR is 44 mm
	Baumit GranoporFine Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,41), THR is 44 mm

Table 29 – Water vapour permeability of rendering systems

Baumit StarContact light (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats + decorative coats indicated hereafter:	Baumit SilikatTop Baumit SilikatColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,64), THR is 64 mm
	Baumit SilikatTop Baumit StarColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,78), THR is 64 mm
	Baumit SilikatTop Baumit ProColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,66), THR is 64 mm
	Baumit NanoporTop Baumit Nanopor Color	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,25), THR is 64 mm
	Baumit SilikonTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,64), THR is 64 mm
	Baumit SilikonTop K1,5 Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 1,5 mm: 0,74), THR is 47 mm
	Baumit SiliporTop Baumit FillTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,90), THR is 67 mm
	Baumit GranoporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,52), THR is 64 mm
	Baumit StyleTop Baumit StyleColor	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,74), THR is 64 mm
	Baumit StyleTop Baumit Metallic	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,05), THR is 63 mm
	Baumit StyleTop Baumit Finish	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,67), THR is 63 mm
	Baumit StyleTop Baumit Finish Baumit Lasur	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 65 mm
	Baumit Fascina Special Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,26), THR is 64mm

	Baumit CreativTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,44), THR is 74 mm
	Baumit StellaporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,60), THR is 64mm
	Baumit MosaikTop Baumit Glitter	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,83), THR is 60 mm
	Baumit NanoporFine Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,26), THR is 44 mm
	Baumit GranoporFine Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,41), THR is 44 mm

Table 30 – Water vapour permeability of rendering systems

Baumit StarContact white (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats + decorative coats indicated hereafter:	Baumit SilikatTop Baumit SilikatColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,61), THR is 64 mm
	Baumit SilikatTop Baumit StarColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,80), THR is 64 mm
	Baumit SilikatTop Baumit ProColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,65), THR is 64 mm
	Baumit NanoporTop Baumit Nanopor Color	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,25), THR is 64 mm
	Baumit SilikonTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,64), THR is 64 mm
	Baumit SilikonTop K1,5 Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 1,5 mm: 0,74), THR is 47 mm
	Baumit SiliporTop Baumit FillTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,91), THR is 67 mm
	Baumit GranoporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,53), THR is 64 mm

	Baumit StyleTop Baumit StyleColor	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,74), THR is 64 mm
	Baumit StyleTop Baumit Metallic	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 63 mm
	Baumit StyleTop Baumit Finish	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,67), THR is 63 mm
	Baumit StyleTop Baumit Finish Baumit Lasur	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 65 mm
	Baumit Fascina Special Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,26), THR is 64mm
	Baumit CreativTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,45), THR is 74 mm
	Baumit StellaporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,60), THR is 64mm
	Baumit MosaikTop Baumit Glitter	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,83), THR is 60 mm
	Baumit NanoporFine Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,26), THR is 44 mm
	Baumit GranoporFine Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,53), THR is 44 mm

Table 31 – Water vapour permeability of rendering systems

Baumit StarContact forte (thickness 5 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats + decorative coats indicated hereafter:	Baumit SilikatTop Baumit SilikatColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,85), THR is 84 mm
	Baumit SilikatTop Baumit StarColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,92), THR is 84 mm
	Baumit SilikatTop Baumit ProColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,78), THR is 84 mm
	Baumit NanoporTop Baumit Nanopor Color	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,50), THR is 84 mm
	Baumit SilikonTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,89), THR is 84 mm
	Baumit SilikonTop K1,5 Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 1,5 mm: 0,99), THR is 77 mm
	Baumit SiliporTop Baumit FillTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 1,15), THR is 87 mm
	Baumit GranoporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,84), THR is 94 mm
	Baumit StyleTop Baumit StyleColor	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,95), THR is 84 mm
	Baumit StyleTop Baumit Metallic	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,30), THR is 83 mm
	Baumit StyleTop Baumit Finish	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,92), THR is 83 mm
	Baumit StyleTop Baumit Finish Baumit Lasur	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,31), THR is 83 mm
	Baumit Fascina Special Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,51), THR is 84mm

	Baumit CreativTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,69), THR is 94 mm
	Baumit StellaporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,85), THR is 84mm
	Baumit MosaikTop Baumit Glitter	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 1.1), THR is 80 mm
	Baumit NanoporFine Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,47), THR is 63 mm
	Baumit GranoporFine Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,66), THR is 63 mm

Table 32 – Water vapour permeability of rendering systems

Baumit StarContactSpeed (thickness 3 mm)		**Equivalent air thickness** (m)
Rendering systems: base coat + key coat according to Clause 1.1 + finishing coats + decorative coats indicated hereafter:	Baumit SilikatTop Baumit SilikatColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,61), THR is 64 mm
	Baumit SilikatTop Baumit StarColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,80), THR is 64 mm
	Baumit SilikatTop Baumit ProColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikatTop, floated structure, particles size 3,0 mm: 0,65), THR is 64 mm
	Baumit NanoporTop Baumit Nanopor Color	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporTop, floated structure, particles size 3,0 mm: 0,25), THR is 64 mm
	Baumit SilikonTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 3,0 mm: 0,64), THR is 64 mm
	Baumit SilikonTop K1,5 Baumit FineTop	**≤ 2,0** (test results obtained with finishing coat Baumit SilikonTop, floated structure, particles size 1,5 mm: 0,74), THR is 47 mm
	Baumit SiliporTop Baumit FillTop	**≤ 2,0** (test results obtained with finishing coat Baumit SiloporTop, floated structure, particles size 3,0 mm: 0,91), THR is 67 mm
	Baumit GranoporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporTop, floated structure, particles size 3,0 mm: 0,53), THR is 64 mm

	Baumit StyleTop Baumit StyleColor	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,74), THR is 64 mm
	Baumit StyleTop Baumit Metallic	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 63 mm
	Baumit StyleTop Baumit Finish	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 0,67), THR is 63 mm
	Baumit StyleTop Baumit Finish Baumit Lasur	**≤ 2,0** (test results obtained with finishing coat Baumit StyleTop, floated structure, particles size 3,0 mm: 1,06), THR is 65 mm
	Baumit Fascina Special Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit Fascina special, floated structure, particles size 3,0 mm: 0,26), THR is 64mm
	Baumit CreativTop Baumit SilikonColor	**≤ 2,0** (test results obtained with finishing coat Baumit CreativTop Max, floated structure, particles size 4,0 mm: 0,45), THR is 74 mm
	Baumit StellaporTop Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit StellaporTop, floated structure, particles size 3,0 mm: 0,60), THR is 64mm
	Baumit MosaikTop Baumit Glitter	**≤ 2,0** (test results obtained with finishing coat Baumit MosaikTop 2, floated structure, particles size 2,0 mm: 0,83), THR is 60 mm
	Baumit NanoporFine Baumit NanoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit NanoporFine, floated structure, particles size 1,0 mm: 0,26), THR is 44 mm
	Baumit GranoporFine Baumit GranoporColor	**≤ 2,0** (test results obtained with finishing coat Baumit GranoporFine, floated structure, particles size 1,0 mm: 0,53), THR is 44 mm

3.3.5 Release of dangerous substances (ETAG 004 – Clause 5.1.3.5, EOTA TR 034)

In addition to the specific clauses relating to dangerous substances contained in this European Technical Assessment, there may be other requirements applicable to the kit falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet provisions of the EU Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

A written declaration was submitted by the ETA-holder- ETICS manufacturer.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Bond strength between base coat and insulation product (ETAG 004 – Clause 5.1.4.1.1)

- Base coat Baumit StarContact onto EPS (EN 13163 – TR100)

Table 33 – Bond strength of base coat onto insulation product

Conditionings		
Initial state	**After the hygrothermal cycles (on the rig)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	< 0,08 MPa*	Not performed
* Failure occurred in insulation product.		

- Base coat Baumit StarContact light onto EPS (EN 13163 – TR100)

Table 34 – Bond strength of base coat onto insulation product

Conditionings		
Initial state	**After the hygrothermal cycles (on the rig)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

- Base coat Baumit StarContact white (EN 13163 – TR100)

Table 35 – Bond strength of base coat onto insulation product

Conditionings		
Initial state	**After the hygrothermal cycles (on the rig)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

- Base coat Baumit StarContact forte (EN 13163 – TR100)

Table 36 – Bond strength of base coat onto insulation product

Conditionings		
Initial state (EN 13163 – TR100)	**After the hygrothermal cycles (on the rig) (EN 13163 – TR150)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

- Base coat Baumit StarContact Speed (EN 13163 – TR100)

Table 37 – Bond strength of base coat onto insulation product

Conditionings		
Initial state (EN 13163 – TR100)	**After the hygrothermal cycles (on the rig) (EN 13163 – TR100)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

- Base coat Baumit EasyFlex (EN 13163 – TR100 or TR150)

Table 38 – Bond strength of base coat onto insulation product

Conditionings		
Initial state (EN 13163 – TR100)	**After the hygrothermal cycles (on the rig) (EN 13163 – TR150)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

- Base coat Baumit PowerFlex (EN 13163 – TR100 or TR150)

Table 39 – Bond strength of base coat onto insulation product

Conditionings		
Initial state (EN 13163 – TR100)	**After the hygrothermal cycles (on the rig) (EN 13163 – TR150)**	**After the freeze/thaw cycles (on samples)**
≥ 0,08 MPa	≥ 0,08 MPa	Not performed

3.4.2 Bond strength between adhesive and substrate/insulation product (ETAG 004 – Clauses 5.1.4.1.2 and 5.1.4.1.3)

Table 40 – Bond strength of adhesive onto substrate and EPS (EN 13163 – TR100 or TR120 or TR150)

		Conditionings		
		Initial state	**48 h immersion in water + 2 h 23 °C/50% RH**	**48 h immersion in water + 7 days 23 °C/50% RH**
Baumit StarContact	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
Baumit StarContact light	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,14 MPa)	≥ 0,08 MPa	≥ 0,25 MPa
Baumit StarContact white	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,08 MPa	≥ 0,25 MPa
Baumit NivoFix	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,08 MPa	≥ 0,25 MPa
Baumit StarContact forte	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,08 MPa	≥ 0,25 MPa
Baumit SupraFix	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,08 MPa	≥ 0,25 MPa

Baumit StarContact Speed	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	Insulation product EPS –TR100	≥ 0,08 MPa (min. 0,10 MPa)	≥ 0,03 MPa	≥ 0,08 MPa
	Insulation product EPS –TR150	≥ 0,08 MPa (min. 0,15 MPa)	≥ 0,08 MPa	≥ 0,25 MPa
Baumit StarContact	Special anchor Baumit Klebeanker	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
*Failure occurred in the insulation product.				

The minimum bonded surface *S*, which shall excess 20 %, is calculated as follows: $S\ (\%) = [0{,}03 \times 100]/B$

where:

B is minimum failure resistance of the adhesive to the insulation product in dry conditions for all failure modes expressed in MPa;

0,03 MPa corresponds to the minimum requirements.

The ETICS shall be installed on the substrate with application of the adhesive on the following minimal surface (% of total) according to Tables 41, 42 and 43.

Table 41 – Minimum admissible bonded surface area for bonded ETICS

Tensile strength perpendicular to the faces of the insulation product (Baumit ProTherm (100) and Baumit StarTherm (100))	Minimum admissible bonded surface area for bonded ETICS
≥ 100 kPa (EPS-EN 13163-TR100)	40 %

Table 42 – Minimum admissible bonded surface area for bonded ETICS

Tensile strength perpendicular to the faces of the insulation products (Baumit ProTherm (120) and Baumit StarTherm (120))	Minimum admissible bonded surface area for bonded ETICS
≥ 120 kPa (EPS-EN 13163-TR120)	25 %

Table 43 – Minimum admissible bonded surface area for bonded ETICS

Tensile strength perpendicular to the faces of the insulation product (Baumit ProTherm (150) and Baumit StarTherm (150))	Minimum admissible bonded surface area for bonded ETICS
≥ 150 kPa (EPS-EN 13163-TR150)	20 %

3.4.3 Bond strength after ageing (ETAG 004 – Clauses 5.1.7.1 and 5.1.7.2)

Table 44 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit StarContact		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

Table 45 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit StarContact light		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

Table 46 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit StarContact white		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

Table 47 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit StarContact forte		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

Table 48 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit StarContact Speed		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + key coats according to Clause 1.1 + finishing coats indicated hereafter:	Baumit SilikatTop*	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop*		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine*		
	Baumit FineTop		
	Baumit NanoporFine*		
	Baumit GranoporFine		

* Tested according to ETAG 004, Clause 5.1.7.1 and according to ETAG 004, Clause 5.1.7.2.

Table 49 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit EasyFlex		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

Table 50 – Bond strength of rendering systems after ageing (ETAG 004 – Clause 5.1.7.2)

Baumit PowerFlex		After 7 days immersion in water + 7 days 23 °C/50% RH (on samples)	After freeze/thaw cycles
Rendering systems: base coat + finishing coats indicated hereafter:	Baumit SilikatTop	≥ 0,08 MPa	Test not performed because freeze/thaw cycles not necessary
	Baumit NanoporTop		
	Baumit SilikonTop		
	Baumit SiliporTop		
	Baumit GranoporTop		
	Baumit StyleTop		
	Baumit Fascina Special		
	Baumit CreativTop		
	Baumit StellaporTop		
	Baumit MosaikTop		
	Baumit MosaikSuperFine		
	Baumit FineTop		
	Baumit NanoporFine		
	Baumit GranoporFine		

3.4.4 Fixing strength (ETAG 004 – Clause 5.1.4.2)

Test not required because the ETICS fulfills the following criteria:

- The bonded area exceeds 20 % in case of mechanically fixed systems with supplementary adhesive.
- $E \times d$ = 10 503 N/mm < 50 000 N/mm, where E is static modulus of elasticity of the base coat **Baumit StarContact** without glass fibre mesh and d is mean dried thickness of the base coat.
- $E \times d$ = 8 457 N/mm < 50 000 N/mm, where E is static modulus of elasticity of the base coat **Baumit StarContact light** without glass fibre mesh and d is mean dried thickness of the base coat.
- $E \times d$ = 9 666 N/mm < 50 000 N/mm, where E is static modulus of elasticity of the base coat **Baumit StarContact white** without glass fibre mesh and d is mean dried thickness of the base coat.
- $E \times d$ = 19 395 N/mm < 50 000 N/mm, where E is dynamic modulus of elasticity of the base coat **Baumit StarContact Forte** without glass fibre mesh and d is mean dried thickness of the base coat.
- $E \times d$ = 933 N/mm < 50 000 N/mm, where E is static modulus of elasticity of the base coat **Baumit EasyFlex** without glass fibre mesh and d is mean dried thickness of the base coat.
- $E \times d$ = 1 053 N/mm < 50 000 N/mm, where E is static modulus of elasticity of the base coat **Baumit PowerFlex** without glass fibre mesh and d is mean dried thickness of the base coat.

3.4.5 Wind load resistance (ETAG 004 – Clause 5.1.4.3)

Safety in use of mechanically fixed ETICS using anchors

The following values only apply for the combination (anchor's trade name)/ (EPS board's characteristics) mentioned in the first lines of each table.

Table 51 – Failure loads of combination of anchors described in below table and insulation product – EPS-EN 13163-TR100

Anchors for which the following failure loads apply		Trade name		**Hilti insulation anchor SD-FV 8** Hilti ETICS-ANCHOR D-FV Hilti ETICS-ANCHOR D-FV T Hilti Dämmstoffelement XI-FV Hilti SX-FV Koelner TFIX-8M Koelner TFIX 8S Koelner TFIX 8ST IsoFux NDS8Z IsoFux NDS90Z IsoFux NDM90Z IsoFux NDM8Z IsoFux Rocket
		Plate diameter (mm)		≥ 60
Characteristic of the insulation product panels for which the following failure loads apply		Thickness (mm)		≥ 60
		Tensile strength perpendicular to the face (kPa)		≥ 100
Failure loads (N)	Anchors not placed at the panel joint (pull – through test)		R_{panel}:	Minimum: **450** Average: **510**
	Anchors placed at the panel joint (static foam block test)		R_{joint}:	Minimum: **337,5** Average: **383**

Table 52 – Failure loads of combination of anchors described in below table and insulation product – EPS-EN 13163-TR100

Anchors for which the following failure loads apply		Trade name		Hilti D8-FV
		Plate diameter (mm)		≥ 60
Characteristic of the insulation product panels for which the following failure loads apply		Thickness (mm)		≥ 100
		Tensile strength perpendicular to the face (kPa)		≥ 100
Failure loads (N)	Anchors not placed at the panel joint (pull – through test)		R_{panel}:	Minimum: **510** Average: **540**
	Anchors placed at the panel joint (static foam block test)		R_{joint}:	Minimum: **430** Average: **470**

Table 53 – Failure loads of combination of anchors described in below table and insulation product – EPS-EN 13163-TR100

Anchors for which the following failure loads apply		Trade name		fischer TERMOZ 8U fischer TERMOZ 8 N fischer Termoz CN 8 fischer Termoz 8 NZ fischer Termoz 8 SV **fischer Termoz 8 UZ** fischer Termoz PN 8 KEW InsuFix TSD-V KEW InsuFix TSBD 8 KEW TSD 8
		Plate diameter (mm)		≥ 60
Characteristic of the insulation product panels for which the following failure loads apply		Thickness (mm)		≥ 60
		Tensile strength perpendicular to the face (kPa)		≥ 100
Failure loads (N)	Anchors not placed at the panel joint (pull – through test)		R_{panel}:	Minimum: **560** Average: **571**
	Anchors placed at the panel joint (static foam block test)		R_{joint}:	Minimum: **493** Average: **503**

Table 54 – Failure loads of combination of anchors described in below table and insulation product – EPS-EN 13163-TR100

Anchors for which the following failure loads apply	Trade name		Bravoll PTH-KZ 60/8-La Bravoll PTH-KZL 60/8-La **Bravoll PTH 60/8-La** Bravoll PTH-L 60/8-La Bravoll PTH-S 60/8 Bravoll PTH-SX Bravoll PTX Bravoll PTH-EX ejotherm STR U ejotherm STR U 2G ejotherm NT U ejotherm NK U Hilti SX-FV Koelner TFIX 8S Koelner TFIX 8ST KEW TSD-V
	Plate diameter (mm)		≥ 60
Characteristic of the insulation product panels for which the following failure loads apply	Thickness (mm)		≥ 50
	Tensile strength perpendicular to the face (kPa)		≥ 100
Failure loads (N)	Anchors not placed at the panel joint (pull – through test)	R_{panel}:	Minimum: **502** Average: **514**
	Anchors placed at the panel joint (static foam block test)	R_{joint}:	Minimum: **322** Average: **359**

Table 55 – Failure loads of combination of anchors described in below table and insulation product – EPS-EN 13163-TR100

Anchors for which the following failure loads apply	Trade name		**SPIT ISO** ejot H1 eco ejot H3 ejotherm NTK U fischer TERMOZ 8 N fischer Termoz 8 NZ fischer TERMOZ KS 8 fischer Termoz CN 8 hilti fixing element XI-FV KOELNER KI-10N KOELNER KI-10NS KI-10, KI-10PA KI-10M KOELNER TFIX-8M KOELNER TFIX-8P
	Plate diameter (mm)		≥ 50
Characteristic of the insulation product panels for which the following failure loads apply	Thickness (mm)		≥ 50
	Tensile strength perpendicular to the face (kPa)		≥ 100
Failure loads (N)	Anchors not placed at the panel joint (pull – through test)	R_{panel}:	Minimum: **407** Average: **421**
	Anchors placed at the panel joint (pull – through test)	R_{joint}:	Minimum: **363** Average: **373**

Table 56 – Failure loads of combination of anchors described in below table and insulation product – EPS

Anchors for which the following failure loads apply		Trade name		Baumit KlebeAnker/ Baumit StarTrack
		Plate diameter (mm)		≥ 60
Characteristic of the insulation product panels for which the following failure loads apply		Thickness (mm)		≥ 70
		Tensile strength perpendicular to the face (kPa)		≥ 150
Failure loads (N)	Anchors not placed at the panel joint (static foam block test – 4 anchors placed at the centre of the panel)		R_{panel}:	Minimum: **500** Average: **614**

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

$$R_d = [R_{panel} \times n_{panel} + R_{joint} \times n_{joint}] / \gamma$$

where

n_{panel} is number (per m^2) of anchors not placed at the panel joint;
n_{joint} is number (per m^2) of anchors placed at the panel joint;
γ is national safety factor.

3.4.5 Render strip tensile test (ETAG 004 – Clause 5.5.4.1)

The mean value of the crack width of the base coats with the glass fibres mesh Baumit StarTex (4 mm × 4 mm) and **Baumit StarTex (160)** have not been tested (No performance assessed).

3.5 Protection against noise (BWR 5)

3.5.1 Airborne sound insulation (ETAG 004 – Clause 5.1.5.1)

No performance assessed.

3.6 Energy economy and heat retention (BWR 6)

3.6.1 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:

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

where $\chi_p.n$ has only to be taken into account if it is greater than 0,04 W/(m^2.K);

U_c global (corrected) thermal transmittance of the covered wall (W/(m^2.K));

n number of anchors (through insulation product) per m^2;

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 ($\chi_p.n$ negligible for $n < 20$);
- = 0,004 W/K for anchors with a galvanized steel screw with the head covered by a plastic material ($\chi_p.n$ 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/ (m^2.K)) determined as follows:

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

where R_i thermal resistance of the insulation product (according to declaration in reference to EN 13163) in (m^2.K)/W;

R_{render} thermal resistance of the render (about 0,02 in (m^2.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 (m^2.K)/W;

R_{se} external superficial thermal resistance in (m^2.K)/W;

R_{si} internal superficial thermal resistance in (m^2.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.

3.7 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 57 – Assessment and verification of constancy of performance system

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 Technický a skúšobný ústav stavebný, n. o. have agreed a Control Plan which is deposited with the Technický a skúšobný ústav stavebný, n. o. 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 Technický a skúšobný ústav stavebný, n. o. without delay.

Technický a skúšobný ústav stavebný, n. o.
Building Testing and Research Institute
Studená 3, 821 04 Bratislava, Slovak Republic

On behalf of the Technický a skúšobný ústav stavebný, n. o.
Bratislava, 17 December 2015

prof. Ing. Zuzana Sternová, PhD.
Head of Technical Assessment Body

Annexes

Annex 1 – Insulation product characteristics

Annex 2 – Description and characteristics of the anchors

Annex 3 – Description and characteristics of the reinforcement

Annex 4 – Correspondence between trade names used for components Baumit StarSystem EPS

Annex 1 – Insulation product characteristics

Table 58 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit ProTherm (100)" *white color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,038 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 100 kPa and < 150 kPa, EPS - EN 13163 – TR100	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Table 59 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit StarTherm (100)" *grey color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,031 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 100 kPa and < 150 kPa, EPS - EN 13163 – TR100	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Table 60 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit ProTherm (120)" *white color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,038 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T1** EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 120 kPa and < 150 kPa, EPS - EN 13163 – TR120	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Table 61 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit ProTherm (120)" *grey color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,031 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T1** EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 120 kPa and < 150 kPa, EPS - EN 13163 – TR120	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Table 62 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit ProTherm (150)" *white color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,038 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 150 kPa and < 200 kPa, EPS - EN 13163 – TR150	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Table 63 – Characteristics of the insulation product(s)

Description and characteristics		EPS panel "Baumit StarTherm (150)" *grey color*	
		for bonded ETICS	**for mechanically fixed ETICS with anchors**
Reaction to fire / STN EN 13501-1		Euroclass E (thickness from 20 to 300 mm, density from 13,5 to 18 kg/m^3)	
Thermal resistance ((m^2.K)/W)		Defined in the CE marking in reference to EN 13163 "Thermal insulation products for buildings – Factory made products of expanded polystyrene" λ_{ins}: **< 0,031 W/(m·K)** (declared value)	
Thickness (mm) / EN 823		EPS - EN 13163 – **T2**	
Length (mm) / EN 822		EPS - EN 13163 – **L1** EPS - EN 13163 – **L2**	
Width (mm) / EN 822		EPS - EN 13163 – **W2**	
Squareness (mm) / EN 824		EPS - EN 13163 – **S1** EPS - EN 13163 – **S2**	
Flatness (mm) / EN 825		EPS - EN 13163 – **P3** EPS - EN 13163 – **P4**	
Surface condition		Cut surface (homogeneous and without "skin")	
Dimensional stability under	specified temperature and humidity / EN 1604	EPS - EN 13163 – **DS(70,-)1** EPS - EN 13163 – **DS(70,-)2**	
	laboratory condition / EN 1603	EPS - EN 13163 – **DS(N)2**	
Bending strength according to EN 12089		EPS - EN 13163 – **BS115**	
Compressive stress or compressive strength (kPa) / EN 826		EPS - EN 13163 – **CS(10)70**	
Tensile strength perpendicular to the faces in dry conditions / EN 1607		≥ 150 kPa and < 200 kPa, EPS - EN 13163 – TR150	
Short term water absorption by partial immersion / EN 1609		< 0,5 kg/m^2	
Water vapour diffusion resistance factor (μ) / EN 12086		≥ 20 ≤ 60	
Shear strength (N/mm^2) / EN 12090		≥ 0,02 MPa	–
Shear modulus (N/mm^2) / EN 12090		≥ 1,0 MPa	–

Annex 2 – Description and characteristics of anchors

Table 64 – References to ETAs for anchors used in ETICS

Trade name	Description Plate stiffness/Load resistance of the anchor plate	Plate diameter mm	Characteristic resistance in substrate stated in
EJOT ejotherm NTK U	Nailed-in plastic anchor with polyamide nail and plastic head 0,5 kN/mm/1,4 kN Use of category: A, B, C	60	ETA-07/0026
Ejot H1 eco	Nailed-in plastic anchor with steel nail 0,6 kN/mm/1,4 kN Use of category: A, B, C	60	ETA-11/0192
Ejot H4 eco	Nailed-in plastic anchor with polyamide nail 0,6 kN/mm/1,4 kN Use of category: A, B, C, D, E	60	ETA-11/0192
EJOT H3	Nailed-in plastic anchor with polyamide nail 0,6 kN/mm/1,25 kN Use of category: A, B, C	60	ETA-14/0130
Ejotherm STR U Ejotherm STR U 2G	Screwed-in plastic anchor with steel screw and plastic head 0,6 kN/mm/2,08 kN Use of category: A, B, C, D, E	60	ETA-04/0023
ejotherm NT U ejotherm NK U	Nailed-in plastic anchor with steel nail 0,6 kN/mm/2,43 kN Use of category: A, B, C	60	ETA-05/0009
Hilti SD-FV 8 with doublehead HDT-FV90	Nailed-in plastic anchor with polyamide nail 0,3 kN/mm/1,55 kN Use of category: A, B, C	60	ETA-03/0028
Hilti ETICS-Anchor D-FV Hilti ETICS-Anchor D-FV T	Screwed-in plastic anchor with steel screw 0,8 kN/mm/1,93 kN Use of category: A, B, C, D, E	60	ETA-05/0039
Hilti fixing element XI-FV	plastic part made of polyethylene 0,4 kN/mm/1,6 kN	60	ETA-03/0004
Hilti D8-FV (used only with thermal insulation bigger than 100 mm)	Screwed-in plastic anchor with screw of galvanised steel 0,63 kN/mm/3,16 kN Use of category: A, B, C, D, E Used for thickness of EPS from 100 mm	60	ETA-07/0288
Hilti SX-FV	Fixing element from polyethylene with sleeve from stainless steel 0,7 kN/mm/1,73 kN Use of category: A, B, C	60	ETA-03/0005
Hilti SDX 8	Nailed in plastic anchor with nail made from polyamide 0,6 kN/mm/1,6 kN Use of category: A, B, C, D, E	60/65	ETA-14/0399
Hilti SDK-FV 8	Nailed in plastic anchor with nail made from polyamide 0,5 kN/mm/1,48kN Use of category: A, B, C	60	ETA-07/0302

KOELNER TFIX-8M	Nailed-in anchor with nail of galvanised steel 1,0 kN/mm/1,75 kN Use of category: A, B, C	60	ETA-07/0336
KOELNER TFIX 8S KOELNER TFIX 8ST	Screwed-in anchor with screw of galvanised steel 0,6 kN/mm/2,04 kN Use of category: A, B, C, D (for KOELNER TFIX 8S) Use of category: A, B, C, D, E (for KOELNER TFIX 8ST)	60	ETA-11/0144
KOELNER TFIX-8P	Nailed-in plastic anchor with nail of galvanised steel 0,3 kN/mm/1,38 kN Use of category: A, B, C, D, E	60	ETA-13/0845
KOELNER KI-10N KOELNER KI-10NS	Nailed-in plastic anchor with steel nail 0,5 kN/mm/1,23 kN Use of category: B, C, D, E (for KOELNER KI-10N) Use of category: A, B, C, D, E (for KOELNER KI-10NS)	60	ETA-07/0221
KI-10, KI-10PA KI-10M	Nailed-in plastic anchor with polypropylene nail 0,5 kN/mm/2,1 kN (for KI-10, KI-10PA) 0,4 kN/mm/2,6 kN (for KI-10M) Use of category: A, B, C, D, E	60	ETA-07/0291
Fischer Termoz 8 N Fischer Termoz 8 NZ	Nailed-in plastic anchor with steel nail 0,5 kN/mm/1,34 kN Use of category: A, B, C (for Fischer Termoz 8 N) Use of category: A, B, C, D (for Fischer Termoz 8 NZ)	60	ETA-03/0019
Fischer Termoz CN 8	Nailed-in polypropylene anchor 0,4 kN/mm/1,6 kN Use of category: A, B, C, D	60	ETA-09/0394
Fischer Termoz 8 SV	Screwed-in anchor with screw of galvanised steel 1,1 kN/mm/2,13 kN Use of category: A, B, C, D, E	60	ETA-06/0180
Fischer Termoz 8 U Fischer Termoz 8 UZ	Screwed-in plastic anchor with steel screw and plastic head 0,5 kN/mm/2,45 kN Use of category: A, B, C, E (valid for Fischer Termoz 8 U) Use of category: A, B, C, D (valid for Fischer Termoz 8 U)	60	ETA-02/0019
Fischer Termoz PN8	Nailed-in plastic anchor with polyamide nail 0,4 kN/mm/1,6 kN Use of category: A, B, C	60	ETA-09/0171
KEW TSD-V	Nailed in anchor with galvanized steel nail 1,24 kN/mm/1,75 kN Use of category: A, B, C	60	ETA-08/0315
KEW TSBD	Nailed in anchor with galvanized steel nail 1,6 kN/mm/2,22 kN Use of category: A, B, C, D	60	ETA-08/0314

KEW TSD 8	Nailed in anchor with galvanized steel nail 0,6 kN/mm/1,6 kN Use of category: A, B, C, D	60		ETA-04/0030
Bravoll PTH-KZ Bravoll PTH-KZL Bravoll PTH Bravoll PTH-L	Nailed-in plastic anchor with polyamide (PTH-KZ) (steel – PTH-KZ) nail and plastic head 0,4 kN/mm/1,8 kN Use of category (Bravoll PTH 60/8): A, B Use of category (Bravoll PTH-KZ 60/8): A, B, C, D	60		ETA-05/0055
Bravoll PTH-S 60/8-La	Screwed-in plastic anchor with steel screw 0,9 kN/mm/2,6 kN Use of category: A, B, C, D, E	60		ETA-08/0267
Bravoll PTH SX	Screwed-in plastic anchor with plastic screw 0,5 kN/mm/1,8 kN Use of category: A, B, C, D, E	60		ETA-10/0028
Bravoll PTH X Bravoll PTH-EX	Nailed-in plastic anchor with polyamide (PTH X) or steel screw (PTH-EX) 0,6 kN/mm/1,5 kN Use of category: A, B, C, D	60		ETA-13/0951
IsoFux NDS8Z IsoFux NDS90Z IsoFux NDM90Z IsoFux NDM8Z	Nailed-in plastic anchor with steel screw 0,9 kN/mm/2,2 kN Use of category: A, B, C	60		ETA-07/0129
IsoFux Rocket	Screwed-in plastic anchor with steel screw 1,1 kN/mm/2,5 kN Use of category: A, B, C, E	60		ETA-12/0093
SPIT ISO	Nailed in plastic anchor with plastic nail 0,3 kN/mm/1,0 kN Use of category: A, B, C	50 to 60	90	ETA-04/0076
Baumit Klebeanker/Baumit StarTrack/KlebeAnker JJ A8+ (This anchor is for load transmission of the adhesives Baumit StarContact and Baumit StarContact white into the substrate and is used only with EPS-TR150)	Use of category: A, B, C, E	60		ETA-06/0015
Baumit Klebeanker/Baumit StarTrack/ KlebeAnker Duplex JJ A8S (This anchor is for load transmission of the adhesives Baumit StarContact and Baumit StarContact white into the substrate and is used only with EPS-TR150)	Use of category: A, B, C, E	60		ETA-12/0064

Annex 3 – Description and characteristics of the reinforcement

Table 65 – Description and characteristics of the reinforcement

Mesh trade name	Description	Alkalis resistance (5.6.7.1 of ETAG 004)			
		Residual strength after ageing (N/mm)		Relative residual resistance: % (after ageing) of the strength in the as delivered state	
		Warp	Weft	Warp	Weft
Baumit StarTex/Baumit Textilglasgitter/Baumit ProTex	Standard mesh: Mesh size: 4 mm × 4,5 mm Mass per unit area: min. 145 g/m^2	≥ 20		≥ 50	
Baumit StarTex (160)	Standard mesh: Mesh size: 3,5 mm × 3,8 mm Mass per unit area: min. 160 g/m^2	≥ 20		≥ 50	

Annex 4 – Correspondence between trade names used for components

Adhesives	Baumit StarContact		Baumit KlebeSpachtel
	Baumit Starcontact light	Baumit StarContact KBM-Fix	Baumit KlebeSpachtel KBM-Fix
	Baumit StarContact white	Baumit StarContact KBM	Baumit KlebeSpachtel KBM
	Baumit NivoFix	Baumit PaneloFix	Baumit WDVS-Kleber
	Baumit StarContact forte		Baumit DickschichtKlebespachtel
	Baumit SupraFix		Baumit SupraKleber
	Baumit StarContact Speed	Baumit SpeedContact	Baumit SpeedKlebeSpachtel
Insulation boards	Baumit ProTherm (100)		Baumit Fassadendämmplatte EPS-F (100)
	Baumit StarTherm (100)		Baumit Fassadendämmplatte EPS-F plus (100)
	Baumit ProTherm (120)		Baumit Fassadendämmplatte EPS-F (120)
	Baumit StarTherm (120)		Baumit Fassadendämmplatte EPS-F plus (120)
	Baumit ProTherm (150)		Baumit Fassadendämmplatte EPS-F (150)
	Baumit StarTherm (150)		Baumit Fassadendämmplatte EPS-F plus (150)
Special anchor	Baumit KlebeAnker		Baumit StarTrack
Base coats	Baumit StarContact		Baumit KlebeSpachtel
	Baumit Starcontact light	Baumit StarContact KBM-Fix	Baumit KlebeSpachtel KBM-Fix
	Baumit StarContact white	Baumit StarContact KBM	Baumit KlebeSpachtel KBM
	Baumit StarContact forte		Baumit DickschichtKlebespachtel
	Baumit StarContact Speed	Baumit SpeedContact	Baumit SpeedKlebeSpachtel
	Baumit EasyFlex	Baumit Spachtelmasse zementfrei	Baumit Spachtelmasse zementfrei SPM58
	Baumit PowerFlex	Baumit FaserSpachtel	Baumit SilverFlex

Glass fibre meshes	Baumit StarTex	Baumit Textilglasgitter	Baumit ProTex	
	Baumit StarTex (160)			
Key coats	Baumit UniPrimer	Baumit UniversalGrund		
	Baumit PremiumPrimer	Baumit PremiumPrimer DG 27	Baumit DecorGrundierung DG 27	
Finishing coats	Baumit GranoporTop	Baumit GranoporPutz		
	Baumit SilikonTop	Baumit SilikonPutz		
	Baumit CreativTop			
	Baumit StyleTop	Baumit ArtlineTop	Baumit ArtlinePutz	
	Baumit NanoporTop	Baumit NanoporPutz		
	Baumit SilikatTop	Baumit SilikatPutz		
	Baumit SiliporTop	Baumit SiliporPutz		
	Baumit Fascina Special	Baumit Classico Special	Baumit Edelputz Spezial	Baumit ScheibenPutz SEP
	Baumit StellaporTop			
	Baumit MosaikTop			
	Baumit Mosaik Superfine			
	Baumit FineTop	BaumitSilikonFine	Baumit UniTop Fine	
	Baumit NanoporFine	Baumit NanoporTop Fine		
	Baumit GranoporFine			
Decoratice coat/plaster	Baumit CreativTop Silk	Baumit CreativTop S-Fine		
	Baumit FillTop	Baumit UniTop Fill		
	Baumit CreativTop Pearl			

Decorative coat/paint	Baumit NanoporColor	Baumit NanoporFarbe
	Baumit StarColor	
	Baumit SilikonColor	Baumit SilikonFarbe
	Baumit SilikatColor	Baumit SilikatFarbe
	Baumit StyleColor	Baumit ArtlineFarbe
	Baumit ProColor	
	Baumit GranoporColor	Baumit GranoporFarbe
	Baumit Metallic	Baumit Artline Metallic
	Baumit Lasur	Baumit Artline Lasur
	Baumit Finish	Baumit Artline Finish
	Baumit Glitter	Baumit Artline Glitter

Combination of finishing coats and decorative coats

	Baumit NanoporColor	Baumit StarColor	Baumit SilikonColor	Baumit SilikatColor	Baumit ProColor	Baumit GranoporColor	Baumit StyleColor
Baumit NanoporTop	x	x			x		
Baumit StyleTop	x	x	x		x	x	x
Baumit SilikonTop	x	x	x		x	x	x
Baumit SilikatTop	x	x	x	x	x		x
Baumit SiliporTop	x	x	x		x	x	x
Baumit StellaporTop	x	x	x		x	x	x
Baumit GranoporTop	x	x	x	x	x	x	x
Baumit CreativTop	x	x	x		x	x	x
Baumit FineTop	x	x	x		x	x	x
Baumit NanoporFine	x	x			x		
Baumit GranoporFine	x	x	x	x	x	x	x

Combination of finishing coats and decorative coats

	Baumit Metallic	Baumit Lasur	Baumit Glitter	Baumit Finish	Baumit CreativTop Smooth	Baumit CreativTop Pearl	Baumit FillTop
Baumit NanoporTop	x	x	x	x	x	x	x
Baumit StyleTop	x	x	x	x	x	x	x
Baumit SilikonTop	x	x	x	x	x	x	x
Baumit SilikatTop	x	x	x	x	x	x	x
Baumit SiliporTop	x	x	x	x	x	x	x
Baumit StellaporTop	x	x	x	x	x	x	x
Baumit GranoporTop	x	x	x	x	x	x	x
Baumit CreativTop	x	x	x	x	x	x	x
Baumit FineTop	x	x	x	x	x	x	x
Baumit NanoporFine	x	x	x	x	x	x	x
Baumit GranoporFine	x	x	x	x	x	x	x
Baumit MosaikTop				x			
Baumit MosaikSuperFine				x			