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European Technical Assessment

ETA-17/0446 of 16/07/2022

General Part

Technical Assessment Body issuing the European Technical Assessment: Technical and Test Institute for Construction Prague	
Trade name of the construction product	**i-TERM, i-TERM AKRYL, i-TERM SILIKAT, i-TERM SILIKON, i-nTERM SILIKON, i-TERM SISI, i-TERM BIO, BauMaster Termo S, CEMEX DECO**
Product family to which the construction product belongs	Product area code: 4 External Thermal Insulation Composite Systems (ETICS) with renderings
Manufacturer	**MTB Sp. z o.o.** ul. Cegielniana 16, Krępna, 47-330 Zdzieszowice Republic of Poland *http://mtb-polska.pl*
Manufacturing plant(s)	1. **MTB Sp. z o.o.**, ul. Cegielniana 16, Krępna, 47-330 Zdzieszowice, PL 2. **MJG Sp. z o.o.**, ul. Gostyńska 49, 63-100 Śrem, PL 3. **MTB Sp. z o.o.**, Trębaczew 124 D, 96-208 Lubania, PL
This European Technical Assessment contains	48 pages including 4 Annexes which form an integral part of this assessment. Annex No. 5 Control Plan contains confidential information and is not included in the European Technical Assessment when that assessment is publicly disseminated.
This European Technical Assessment is issued in accordance with regulation (EU) No. 305/2011 on the basis of	European Assessment Document (EAD) 040083-00-0404 External Thermal Insulation Composite Systems (ETICS) with renderings
This version replaces	ETA 17/0446, version 02 issued on 17/01/2019

Specific Parts

1 Technical description of the product

1.1 Composition of the product (kit)

Table 1

Use and variant	Component	Coverage [kg/m^2]	Thickness [mm]
Adhesive 1	**i-TERM 1 / stopTERM 1 / i-TERM 1 GRAFIT / BauMaster Thermo S 1 / CEMEX CX-D320** Powder requiring addition of water 0.25 l/kg Use as adhesive and supplementary adhesive	4 − 5 (dry powder)	2 − 40
Adhesive 2	**i-TERM BIAŁY / CEMEX CX-D630** Powder requiring addition of water 0.28 l/kg Use as adhesive and supplementary adhesive	4 − 5 (dry powder)	2 − 40
Adhesive 3	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Powder requiring addition of water 0.25 l/kg Use as adhesive and supplementary adhesive	4 − 5 (dry powder)	2 − 40
Thermal insulation product 1	**EPS BOARD** Factory made expanded polystyrene (EPS) See Annex No. 2	N/A	50 − 300
Anchors	Plastic anchors See Annex No. 3	N/A	N/A
Base coat 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Powder requiring addition of water 0.25 l/kg Use always with key coat: 1 - 5	4 – 5 (for double reinforcement: 6.0 - 7.0) (dry powder)	3 – 5 (for double reinforcement: 5.0)
Base coat 2	**i-TERM BIAŁY / CEMEX CX-D630** Powder requiring addition of water 0.28 l/kg Use voluntary with key coat: 1 - 5	4 – 5 (for double reinforcement: 6.0 - 7.0) (dry powder)	3 – 5 (for double reinforcement: 5.0)
Reinforcement 1	**R 117 A101 / AKE 145** Standard glass fibre mesh, one or two layers Embedded in base coat See Annex No. 4	0.16 – 0.20 (per layer)	< 1.0 (per layer)
Reinforcement 2	**R 131 A101 / AKE 160** Standard glass fibre mesh, one or two layers Embedded in base coat See Annex No. 4	0.16 – 0.20 (per layer)	< 1.0 (per layer)
Reinforcement 3	**R 167 A101** Standard glass fibre mesh, one or two layers Embedded in base coat See Annex No. 4	0.16 – 0.20 (per layer)	< 1.0 (per layer)
Reinforcement 4	**REDNET CB330 NOVA** Standard glass fibre mesh, one or two layers Embedded in base coat See Annex No. 4	0.16 – 0.20 (per layer)	< 1.0 (per layer)
Reinforcement 5	**SSA-1363-4 SM** Standard glass fibre mesh, one or two layers Embedded in base coat See Annex No. 4	0.16 – 0.20 (per layer)	< 1.0 (per layer)

Use and variant	Component	Coverage [kg/m^2]	Thickness [mm]
Key coat 1	**i-TERM GT-A / BauMaster Thermo S GT-A** Use always with base coat 1 Use voluntary with base coat 2 (to be used with mineral and acrylic binder finishing coats)	0.2 – 0.3 (liquid)	< 0.2
Key coat 2	**i-TERM GT-SA** Use always with base coat 1 Use voluntary with base coat 2 (to be used with silicate binder finishing coats)	0.2 – 0.3 (liquid)	< 0.2
Key coat 3	**i-TERM GT-SO** Use always with base coat 1 Use voluntary with base coat 2 (to be used with silicone binder finishing coats)	0.2 – 0.3 (liquid)	< 0.2
Key coat 4	**i-TERM GT-SISI** Use always with base coat 1 Use voluntary with base coat 2 (to be used with silicate-silicone binder finishing coats)	0.2 – 0.3 (liquid)	< 0.2
Key coat 5	**i-TERM GT-U / CEMEX CX-D700** Use voluntary with base coat 2 (to be used with all finishing coats 1 - 87)	0.2 – 0.3 (liquid)	< 0.2
Finishing coat 1	Powder requiring addition of water 0.25 l/kg Grain structure, particle size 1.0 mm (mineral binder) Use always with protection coat: 1 - 5	2.1 (dry powder)	~ 1.0
Finishing coat 2	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** Powder requiring addition of water 0.25 l/kg Grain structure, particle size 1.5 mm (mineral binder) Use always with protective coat: 1 - 5	2.5 (dry powder)	~ 1.5
Finishing coat 3	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** Powder requiring addition of water 0.25 l/kg Grain structure, particle size 2.0 mm (mineral binder) Use always with protective coat: 1 - 5	2.9 (dry powder)	~ 2.0
Finishing coat 4	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** Powder requiring addition of water 0.25 l/kg Grain structure, particle size 3.0 mm (mineral binder) Use always with protective coat: 1 - 5	4.3 (dry powder)	~ 3.0
Finishing coat 5	**i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** Powder requiring addition of water 0.25 l/kg Ribbed structure, particle size 1.0 mm (mineral binder) Use always with protective coat: 1 - 5	2.0 (dry powder)	~ 1.0

Finishing coat 6	**i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** Powder requiring addition of water 0.25 l/kg Ribbed structure, particle size 2.0 mm (mineral binder) Use always with protective coat: 1 - 5	2.8 (dry powder)	~ 2.0
Finishing coat 7	**i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** Powder requiring addition of water 0.25 l/kg Ribbed structure, particle size 3.0 mm (mineral binder) Use always with protective coat: 1 - 5	4.1 (dry powder)	~ 3.0
Finishing coat 8	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** Ready-to-use paste Grain structure, particle size 0.5 mm (acrylic binder)	0.9 (paste)	~ 0.5
Finishing coat 9	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.0 mm (acrylic binder)	1.6 (paste)	~ 1.0
Finishing coat 10	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.5 mm (acrylic binder)	2.4 (paste)	~ 1.5
Finishing coat 11	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** Ready-to-use paste Grain structure, particle size 2.0 mm (acrylic binder)	3.0 (paste)	~ 2.0
Finishing coat 12	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** Ready-to-use paste Grain structure, particle size 3.0 mm (acrylic binder)	5.0 (paste)	~ 3.0
Finishing coat 13	**i-TERM TA-CB** Ready-to-use paste Grain structure, particle size 0.5 mm (acrylic binder)	0.9 (paste)	~ 0.5
Finishing coat 14	**i-TERM TA-CB** Ready-to-use paste Grain structure, particle size 1.0 mm (acrylic binder)	1.6 (paste)	~ 1.0
Finishing coat 15	**i-TERM TA-CB** Ready-to-use paste Grain structure, particle size 1.5 mm (acrylic binder)	2.4 (paste)	~ 1.5
Finishing coat 16	**i-TERM TA-CB** Ready-to-use paste Grain structure, particle size 2.0 mm (acrylic binder)	3.0 (paste)	~ 2.0
Finishing coat 17	**i-TERM TA-CB** Ready-to-use paste Grain structure, particle size 3.0 mm (acrylic binder)	5.0 (paste)	~ 3.0

Finishing coat 18	**i-TERM TA-K** / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 0.5 mm (acrylic binder)	0.9 (paste)	~ 0.5
Finishing coat 19	**i-TERM TA-K** / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.0 mm (acrylic binder)	1.0 (paste)	~ 1.0
Finishing coat 20	**i-TERM TA-K** / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.5 mm (acrylic binder)	1.2 (paste)	~ 1.5
Finishing coat 21	**i-TERM TA-K** / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 2.0 mm (acrylic binder)	2.4 (paste)	~ 2.0
Finishing coat 22	**i-TERM TA-K** / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 3.0 mm (acrylic binder)	3.7 (paste)	~ 3.0
Finishing coat 23	**i-TERM TA-CK** Ready-to-use paste Ribbed structure, particle size 0.5 mm (acrylic binder)	0.9 (paste)	~ 0.5
Finishing coat 24	**i-TERM TA-CK** Ready-to-use paste Ribbed structure, particle size 1.0 mm (acrylic binder)	1.0 (paste)	~ 1.0
Finishing coat 25	**i-TERM TA-CK** Ready-to-use paste Ribbed structure, particle size 1.5 mm (acrylic binder)	1.2 (paste)	~ 1.5
Finishing coat 26	**i-TERM TA-CK** Ready-to-use paste Ribbed structure, particle size 2.0 mm (acrylic binder)	2.4 (paste)	~ 2.0
Finishing coat 27	**i-TERM TA-CK** Ready-to-use paste Ribbed structure, particle size 3.0 mm (acrylic binder)	3.7 (paste)	~ 3.0

Finishing coat 28	**i-TERM SO-B / CEMEX CX-D830 (struktura baranek)** Ready-to-use paste Grain structure, particle size 0.5 mm (silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 29	**i-TERM SO-B / CEMEX CX-D830 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.0 mm (silicone binder)	1.6 (paste)	~ 1.0
Finishing coat 30	**i-TERM SO-B / CEMEX CX-D830 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.5 mm (silicone binder)	2.4 (paste)	~ 1.5
Finishing coat 31	**i-TERM SO-B / CEMEX CX-D830 (struktura baranek)** Ready-to-use paste Grain structure, particle size 2.0 mm (silicone binder)	3.5 (paste)	~ 2.0
Finishing coat 32	**i-TERM SO-B / CEMEX CX-D830 (struktura baranek)** Ready-to-use paste Grain structure, particle size 3.0 mm (silicone binder)	5.0 (paste)	~ 3.0
Finishing coat 33	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 34	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicone binder)	1.0 (paste)	~ 1.0
Finishing coat 35	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicone binder)	1.2 (paste)	~ 1.5
Finishing coat 36	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicone binder)	2.4 (paste)	~ 2.0
Finishing coat 37	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicone binder)	3.7 (paste)	~ 3.0
Finishing coat 38	**i-TERM nSO-B** Ready-to-use paste Grain structure, particle size 0.5 mm (silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 39	**i-TERM nSO-B** Ready-to-use paste Grain structure, particle size 1.0 mm (silicone binder)	1.6 (paste)	~ 1.0
Finishing coat 40	**i-TERM nSO-B** Ready-to-use paste Grain structure, particle size 1.5 mm (silicone binder)	2.4 (paste)	~ 1.5

Finishing coat 41	**i-TERM nSO-B** Ready-to-use paste Grain structure, particle size 2.0 mm (silicone binder)	3.5 (paste)	~ 2.0
Finishing coat 42	**i-TERM nSO-B** Ready-to-use paste Grain structure, particle size 3.0 mm (silicone binder)	5.0 (paste)	~ 3.0
Finishing coat 43	**i-TERM nSO-K** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 44	**i-TERM nSO-K** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicone binder)	1.0 (paste)	~ 1.0
Finishing coat 45	**i-TERM nSO-K** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicone binder)	1.2 (paste)	~ 1.5
Finishing coat 46	**i-TERM nSO-K** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicone binder)	2.4 (paste)	~ 2.0
Finishing coat 47	**i-TERM nSO-K** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicone binder)	3.7 (paste)	~ 3.0
Finishing coat 48	**i-TERM SA-B** Ready-to-use paste Grain structure, particle size 0.5 mm (silicate binder)	0.9 (paste)	~ 0.5
Finishing coat 49	**i-TERM SA-B** Ready-to-use paste Grain structure, particle size 1.0 mm (silicate binder)	1.6 (paste)	~ 1.0
Finishing coat 50	**i-TERM SA-B** Ready-to-use paste Grain structure, particle size 1.5 mm (silicate binder)	2.4 (paste)	~ 1.5
Finishing coat 51	**i-TERM SA-B** Ready-to-use paste Grain structure, particle size 2.0 mm (silicate binder)	3.5 (paste)	~ 2.0
Finishing coat 52	**i-TERM SA-B** Ready-to-use paste Grain structure, particle size 3.0 mm (silicate binder)	5.0 (paste)	~ 3.0
Finishing coat 53	**i-TERM SA-K** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicate binder)	0.9 (paste)	~ 0.5
Finishing coat 54	**i-TERM SA-K** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicate binder)	1.0 (paste)	~ 1.0

Finishing coat 55	**i-TERM SA-K** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicate binder)	1.2 (paste)	~ 1.5
Finishing coat 56	**i-TERM SA-K** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicate binder)	2.4 (paste)	~ 2.0
Finishing coat 57	**i-TERM SA-K** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicate binder)	3.7 (paste)	~ 3.0
Finishing coat 58	**i-TERM SISI-B / CEMEX CX-D820 (struktura baranek)** Ready-to-use paste Grain structure, particle size 0.5 mm (silicate and silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 59	**i-TERM SISI-B / CEMEX CX-D820 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.0 mm (silicate and silicone binder)	1.6 (paste)	~ 1.0
Finishing coat 60	**i-TERM SISI-B / CEMEX CX-D820 (struktura baranek)** Ready-to-use paste Grain structure, particle size 1.5 mm (silicate and silicone binder)	2.4 (paste)	~ 1.5
Finishing coat 61	**i-TERM SISI-B / CEMEX CX-D820 (struktura baranek)** Ready-to-use paste Grain structure, particle size 2.0 mm (silicate and silicone binder)	3.5 (paste)	~ 2.0
Finishing coat 62	**i-TERM SISI-B / CEMEX CX-D820 (struktura baranek)** Ready-to-use paste Grain structure, particle size 3.0 mm (silicate and silicone binder)	5.0 (paste)	~ 3.0
Finishing coat 63	**i-TERM SISI-CB** Ready-to-use paste Grain structure, particle size 0.5 mm (silicate and silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 64	**i-TERM SISI-CB** Ready-to-use paste Grain structure, particle size 1.0 mm (silicate and silicone binder)	1.6 (paste)	~ 1.0
Finishing coat 65	**i-TERM SISI-CB** Ready-to-use paste Grain structure, particle size 1.5 mm (silicate and silicone binder)	2.4 (paste)	~ 1.5
Finishing coat 66	**i-TERM SISI-CB** Ready-to-use paste Grain structure, particle size 2.0 mm (silicate and silicone binder)	3.5 (paste)	~ 2.0
Finishing coat 67	**i-TERM SISI-CB** Ready-to-use paste Grain structure, particle size 3.0 mm (silicate and silicone binder)	5.0 (paste)	~ 3.0

Finishing coat 68	**i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicate and silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 69	**i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicate and silicone binder)	1.0 (paste)	~ 1.0
Finishing coat 70	**i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicate and silicone binder)	1.2 (paste)	~ 1.5
Finishing coat 71	**i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicate and silicone binder)	2.4 (paste)	~ 2.0
Finishing coat 72	**i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicate and silicone binder)	3.7 (paste)	~ 3.0
Finishing coat 73	**i-TERM SISI-CK** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicate and silicone binder)	0.9 (paste)	~ 0.5
Finishing coat 74	**i-TERM SISI-CK** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicate and silicone binder)	1.0 (paste)	~ 1.0
Finishing coat 75	**i-TERM SISI-CK** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicate and silicone binder)	1.2 (paste)	~ 1.5
Finishing coat 76	**i-TERM SISI-CK** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicate and silicone binder)	2.4 (paste)	~ 2.0
Finishing coat 77	**i-TERM SISI-CK** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicate and silicone binder)	3.7 (paste)	~ 3.0
Finishing coat 78	**i-TERM BIO-B** Ready-to-use paste Grain structure, particle size 0.5 mm (silicone-polyurethane binder)	0.9 (paste)	~ 0.5
Finishing coat 79	**i-TERM BIO-B** Ready-to-use paste Grain structure, particle size 1.0 mm (silicone-polyurethane binder)	1.6 (paste)	~ 1.0
Finishing coat 80	**i-TERM BIO-B** Ready-to-use paste Grain structure, particle size 1.5 mm (silicone-polyurethane binder)	2.4 (paste)	~ 1.5

Finishing coat 81	**i-TERM BIO-B** Ready-to-use paste Grain structure, particle size 2.0 mm (silicone-polyurethane binder)	3.5 (paste)	~ 2.0
Finishing coat 82	**i-TERM BIO-B** Ready-to-use paste Grain structure, particle size 3.0 mm (silicone-polyurethane binder)	5.0 (paste)	~ 3.0
Finishing coat 83	**i-TERM BIO-K** Ready-to-use paste Ribbed structure, particle size 0.5 mm (silicone-polyurethane binder)	0.9 (paste)	~ 0.5
Finishing coat 84	**i-TERM BIO-K** Ready-to-use paste Ribbed structure, particle size 1.0 mm (silicone-polyurethane binder)	1.0 (paste)	~ 1.0
Finishing coat 85	**i-TERM BIO-K** Ready-to-use paste Ribbed structure, particle size 1.5 mm (silicone-polyurethane binder)	1.2 (paste)	~ 1.5
Finishing coat 86	**i-TERM BIO-K** Ready-to-use paste Ribbed structure, particle size 2.0 mm (silicone-polyurethane binder)	2.4 (paste)	~ 2.0
Finishing coat 87	**i-TERM BIO-K** Ready-to-use paste Ribbed structure, particle size 3.0 mm (silicone-polyurethane binder)	3.7 (paste)	~ 3.0
Protective coat 1	**i-TERM FARBA AK / CEMEX CX-D910** Ready-to-use liquid Use always with finishing coat: 1 - 7	0.15 – 0.25 (liquid)	< 0.2
Protective coat 2	**i-TERM FARBA SA** Ready-to-use liquid Use always with finishing coat: 1 - 7	0.15 – 0.25 (liquid)	< 0.2
Protective coat 3	**i-TERM FARBA SO / i-TERM FARBA SO-C / i-TERM FARBA nSO / CEMEX CX-D930** Ready-to-use liquid Use always with finishing coat: 1 - 7	0.15 – 0.25 (liquid)	< 0.2
Protective coat 4	**i-TERM FARBA SISI / CEMEX CX-D920** Ready-to-use liquid Use always with finishing coat: 1 - 7	0.15 – 0.25 (liquid)	< 0.2
Protective coat 5	**i-TERM FARBA EGALIZACYJNA** Ready-to-use liquid Use always with finishing coat: 1 - 7	0.15 – 0.25 (liquid)	< 0.2

Types of the ETICS can be distinguished, depending on the fixing method of thermal insulation:

Table 2

Component	Type of ETICS		
	Purely bonded ETICS	**Bonded ETICS** **with supplementary anchors**	**Mechanically fixed ETICS with anchors** **with supplementary adhesive**
Adhesive	**Adhesive 1 - 3** Min. 40 % area covered by adhesive	**Adhesive 1 - 3** Min. 40 % area covered by adhesive	**Adhesive 1 – 3** Min. 30 % area covered by adhesive
Thermal insulation product	**Thermal insulation product 1**		
Anchors	Not to be used	See Annex No. 3	

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

This product is an External Thermal Insulation Composite System (ETICS) with renderings (rendering system). The product is a kit, comprising from number of components.

The ETICS may include special fittings (e.g. base profiles, corner profiles ...) to treat details of ETICS (connections, apertures, corners, parapets, sills ...). Special fittings are not listed nor assessed in this ETA.

The ETICS is installed in accordance with Manufacturer´s installation instructions.

The ETICS may be used on new or existing (retrofit) vertical building walls. The walls can be made of masonry (bricks, blocks, stones, etc.) or concrete (cast on site or as prefabricated panels). The surface can be rendered or unrendered.

The ETICS is designed for use on vertical walls but can also be used on horizontal or inclined surfaces which are not exposed to precipitation.

The ETICS is a non-load-bearing construction element and it does not contribute directly to the stability of the wall on which it is installed.

The ETICS provides additional thermal insulation and protection from effect of weathering.

The provisions made in this ETA are based on an assumed intended working life of at least 25 years, provided that the ETICS installed and maintained properly. The indications given as to the working life of the construction product cannot be interpreted as a guarantee, but are regarded as means for expressing the expected economically reasonable working life of the product.

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advice his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

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

Table 3

Essential characteristic	Assessment method (EAD clause)	Performance
Reaction to fire of ETICS	Cl. 2.2.1.1	See cl. 3.1.1
Reaction to fire of thermal insulation material	Cl. 2.2.1.2	No performance assessed (See Annex 2 for component characteristic)
Façade fire performance	Cl. 2.2.2	No performance assessed
Content, emission and/or release of dangerous substances – leachable substances	Cl. 2.2.4	No performance assessed
Water absorption of the base coat and the rendering system	Cl. 2.2.5.1	See cl. 3.2.1
Water absorption of the insulation product	Cl. 2.2.5.2	No performance assessed (See Annex 2 for component characteristic)
Water-tightness of the ETICS: hygrothermal behaviour	Cl. 2.2.6	See cl. 3.2.2
Water-tightness: freeze thaw performance	Cl. 2.2.7	See cl. 3.2.3
Impact resistance	Cl. 2.2.8	See cl. 3.2.4
Water vapour permeability of the rendering system (equivalent air thickness s_d)	Cl. 2.2.9.1	See cl. 3.2.5
Water vapour permeability of thermal insulation product (water-vapour resistance factor)	Cl. 2.2.9.2	No performance assessed (See Annex 2 for component characteristic)
Bond strength between the base coat and the thermal insulation product (mortar or paste)	Cl. 2.2.11.1	See cl. 3.3.1
Bond strength between the adhesive and the substrate	Cl. 2.2.11.2	See cl. 3.3.2
Bond strength between the adhesive and the thermal insulation product	Cl. 2.2.11.3	See cl. 3.3.3
Wind load resistance of ETICS – pull-through tests of fixings	Cl. 2.2.13.1	See cl. 3.3.4
Fixing strength (transverse displacement)	Cl. 2.2.12	No performance assessed
Wind load resistance of ETICS – static foam block test	Cl. 2.2.13.2	No performance assessed
Wind load resistance of ETICS – dynamic wind uplift test	Cl. 2.2.13.3	No performance assessed
Tensile test perpendicular to the faces of the thermal insulation product – in dry conditions	Cl. 2.2.14.1	No performance assessed
Tensile test perpendicular to the faces of the thermal insulation product – in wet conditions	Cl. 2.2.14.2	No performance assessed
Shear strength and shear modulus of elasticity test of ETICS	Cl. 2.2.15	No performance assessed (See Annex 2 for component characteristic)
Pull-through resistance of fixings from profiles	Cl. 2.2.16	No performance assessed
Render strip tensile test	Cl. 2.2.17	See cl. 3.3.5
Bond strength after ageing of finishing coat tested in the rig	Cl. 2.2.20.1	See cl. 3.3.6
Bond strength after ageing of finishing coat not tested in the rig	Cl. 2.2.20.2	See cl. 3.3.7
Tensile strength of the glass fibre mesh	Cl. 2.2.21.1 Cl. 2.2.21.2	No performance assessed (See Annex 4 for component characteristic)

Essential characteristic	Assessment method (EAD clause)	Performance
Dynamic stiffness of the thermal insulation product	Cl. 2.2.22.2	No performance assessed (See Annex 2 for component characteristic)
Air flow resistance of the thermal insulation product	Cl. 2.2.22.3	No performance assessed (See Annex 2 for component characteristic)
Thermal resistance and thermal transmittance of ETICS	Cl. 2.2.23	See cl. 3.4.1
Thermal resistance of the thermal insulation product	Cl. 2.2.23.1	No performance assessed (See Annex 2 for component characteristic)

Table 4 – Table 31 lay down assessments of essential characteristics of specific combinations of ETICS components.

Any combination of components not meeting the criteria of Table 4 – Table 32 is assessed as "No performance assessed" in regard to the relevant essential characteristic.

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire of ETICS

Table 4

Reaction to fire of ETICS: B-s1, d0	
Component	**ETICS configuration**
Adhesive	**Adhesive 1 - 3** In accordance with Table 1
Thermal insulation product	**Thermal insulation product 1** Max. apparent density (EN 1602): 18 kg/m^3 In accordance with Table 1
Anchors	In accordance with Table 1
Base coat	**Base coat 1 - 2** In thickness of 3 - 5 mm In accordance with Table 1
Reinforcement	**Reinforcement 1 - 5** in max. two layers
Key coat	In accordance with Table 1
Finishing coat	
Protective coat	

3.2 Hygiene, health and the environment (BWR 3)

3.2.1 Water absorption of the base coat and the rendering system

Table 5

Water absorption of the reinforced base coat		
ETICS configuration requirements:	**After 1 h [kg/m^2]**	**After 24 h [kg/m^2]**
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 3 mm	**0.08**	**0.40**
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 5 mm	**0.07**	**0.29**
i-TERM BIAŁY / CEMEX CX-D630 thickness of 3 mm	**0.06**	**0.41**
i-TERM BIAŁY / CEMEX CX-D630 of 5 mm	**0.06**	**0.30**

Table 6

Water absorption of the complete rendering				
ETICS configuration requirements:			**After 1 h [kg/m²]**	**After 24 h [kg/m²]**
Base coat	**Finishing coat**	**Key coat Protective coat**		
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 3 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)**	with key coat of Table 1 with protective coat: **i-TERM FARBA AK / CEMEX CX-D910**	**0.07**	**0.41**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SA**	**0.07**	**0.42**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SO / i-TERM FARBA SO-C / i-TERM FARBA nSO / CEMEX CX-D930**	**0.06**	**0.45**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SISI / CEMEX CX-D920**	**0.07**	**0.43**
		with key coat of Table 1 with protective coat: **i-TERM FARBA EGALIZACYJNA**	**0.06**	**0.39**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**	all of key coats of Table 1 no decorative coat	**0.07**	**0.38**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.06**	**0.30**

i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 3 mm	**i-TERM nSO-B** **i-TERM nSO-K**	all of key coats of Table 1 no decorative coat	**0.07**	**0.45**
	i-TERM SA-B **i-TERM SA-K**		**0.07**	**0.39**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.06**	**0.46**
	i-TERM BIO-B **i-TERM BIO-K**		**0.10**	**0.35**

Table 7

Water absorption of the complete rendering				
ETICS configuration requirements:			**After 1 h [kg/m²]**	**After 24 h [kg/m²]**
Base coat	**Finishing coat**	**2x Key coat Protective coat**		
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 5 mm	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**	all of key coats of Table 1 no protective coat	**0.07**	**0.29**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.08**	**0.45**
	i-TERM nSO-B **i-TERM nSO-K**		**0.06**	**0.43**
	i-TERM SA-B **i-TERM SA-K**		**0.12**	**0.46**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.05**	**0.46**
	i-TERM BIO-B **i-TERM BIO-K**		**0.07**	**0.39**

Table 8

Water absorption of the complete rendering				
ETICS configuration requirements:			**After 1 h [kg/m²]**	**After 24 h [kg/m²]**
Base coat	**Finishing coat**	**Key coat Protective coat**		
i-TERM BIAŁY / CEMEX CX-D630 thickness of 3 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)**	with key coat of Table 1 with protective coat: **i-TERM FARBA AK / CEMEX CX-D910**	**0.07**	**0.41**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SA**	**0.07**	**0.42**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SO / i-TERM FARBA SO-C / i-TERM FARBA nSO / CEMEX CX-D930**	**0.06**	**0.45**
		with key coat of Table 1 with protective coat: **i-TERM FARBA SISI / CEMEX CX-D920**	**0.07**	**0.43**
		with key coat of Table 1 with protective coat: **i-TERM FARBA EGALIZACYJNA**	**0.06**	**0.39**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**	All of key coats of Table 1 No protective coat	**0.06**	**0.38**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.06**	**0.40**
	i-TERM nSO-B **i-TERM nSO-K**		**0.02**	**0.40**

i-TERM BIAŁY / CEMEX CX-D630 thickness of 3 mm	**i-TERM SA-B** **i-TERM SA-K**	All of key coats of Table 1 No protective coat	**0.07**	**0.39**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.06**	**0.46**
	i-TERM BIO-B **i-TERM BIO-K**		**0.10**	**0.36**

Table 9

Water absorption of the complete rendering				
ETICS configuration requirements:			**After 1 h [kg/m²]**	**After 24 h [kg/m²]**
Base coat	**Finishing coat**	**2x Key coat** **Protective coat**		
i-TERM BIAŁY / CEMEX CX-D630 thickness of 5 mm	**i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek)** **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**	with key coat of Table 1 with protective coat of Table 1	**0.06**	**0.33**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**	all of key coats of Table 1 no protective coat	**0.07**	**0.35**
	i-TERM nSO-B **i-TERM nSO-K**		**0.09**	**0.45**
	i-TERM SA-B **i-TERM SA-K**		**0.06**	**0.35**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.06**	**0.34**

3.2.2 Water-tightness of the ETICS: hygrothermal behaviour

Table 10

Water-tightness of the ETICS: hygrothermal behaviour
Hygrothermal cycles have been performed on products tested in the hygrothermal rig. The ETICS passed the test and is assessed as **resistant to hygrothermal cycles**.

3.2.3 Water-tightness: freeze thaw performance

Table 11

Water-tightness: freeze thaw performance
The ETICS is **freeze-thaw resistant**, because the water absorption of both, reinforced base coat and the rendering system, are less than 0.5 kg/m^2 after 24 hours.

3.2.4 Impact resistance

Table 12

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 3 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	1x reinforcement (all types of reinforcements of Table 1 without REDNET CB330 NOVA)	**Yes – 3 J** **Yes – 10 J**	**31 – 3 J** **60 – 10 J**	**III**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **Yes – 10 J**	**27 – 3 J** **60 – 10 J**	**II**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**Yes – 3 J** **Yes – 10 J**	**34 – 3 J** **45 – 10 J**	**II**
	i-TERM nSO-B **i-TERM nSO-K**		**No – 3 J** **Yes – 10 J**	**27 – 3 J** **54 – 10 J**	**II**
	i-TERM SA-B **i-TERM SA-K**				**III**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **Yes – 10 J**	**28 – 3 J** **69 – 10 J**	**II**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **Yes – 10 J**	**23 – 3 J** **56 – 10 J**	**II**

Table 13

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600 thickness of 5 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	2x reinforcements (all types of reinforcements of Table 1 without REDNET CB330 NOVA)	**No – 3 J** **No – 10 J**	**31 – 3 J** **67 – 10 J**	**I**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **No – 10 J**	**31 – 3 J** **67 – 10 J**	**I**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**No – 3 J** **No – 10 J**	**No – 3 J** **17 – 10 J**	**I**
	i-TERM nSO-B **i-TERM nSO-K**		**No – 3 J** **No – 10 J**	**32 – 3 J** **60 – 10 J**	**I**
	i-TERM SA-B **i-TERM SA-K**		**No – 3 J** **Yes – 10 J**	**25 – 3 J** **59 – 10 J**	**II**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **No – 10 J**	**37 – 3 J** **69 – 10 J**	**I**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **No – 10 J**	**21 – 3 J** **61 – 10 J**	**I**

Table 14

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	1x reinforcement only for type: **REDNET CB330 NOVA**	**No – 3 J** **Yes – 10 J**	**31 – 3 J** **63 - 10 J**	**II**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **No – 10 J**	**No – 3 J** **50 - 10 J**	**I**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**No – 3 J** **No – 10 J**	**26 – 3 J** **59 – 10 J**	**I**
	i-TERM nSO-B **i-TERM nSO-K**		**No – 3 J** **No – 10 J**	**No – 3 J** **56 – 10 J**	**I**
	i-TERM SA-B **i-TERM SA-K**		**No – 3 J** **No – 10 J**	**26 – 3 J** **63 – 10 J**	**I**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **No – 10 J**	**27 – 3 J** **53 – 10 J**	**I**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **No – 10 J**	**No – 3 J** **36 – 10 J**	**I**

Table 15

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM BIAŁY / CEMEX CX-D630 thickness of 3 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	1x reinforcement (all types of reinforcements of Table 1 without REDNET CB330 NOVA)	**Yes – 3 J** **Yes – 10 J**	**30 – 3 J** **39 – 10 J**	**III**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **Yes – 10 J**	**26 – 3 J** **58 – 10 J**	**II**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**No – 3 J** **Yes – 10 J**	**No – 3 J** **47 – 10 J**	**II**
	i-TERM nSO-B **i-TERM nSO-K**		**Yes – 3 J** **Yes – 10 J**	**25 – 3 J** **70 – 10 J**	**III**
	i-TERM SA-B **i-TERM SA-K**		**Yes – 3 J** **Yes – 10 J**	**33 – 3 J** **52 – 10 J**	**III**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **Yes – 10 J**	**No – 3 J** **63 – 10 J**	**II**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **Yes – 10 J**	**23 – 3 J** **57 – 10 J**	**II**

Table 16

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM BIAŁY / CEMEX CX-D630 thickness of 5 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	2x reinforcements (all types of reinforcements of Table 1 without REDNET CB330 NOVA)	**No – 3 J** **No – 10 J**	**27 – 3 J** **63 – 10 J**	**I**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **No – 10 J**	**No – 3 J** **45 – 10 J**	**I**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**No – 3 J** **No – 10 J**	**No – 3 J** **24 – 10 J**	**I**
	i-TERM nSO-B **i-TERM nSO-K**		**No – 3 J** **No – 10 J**	**No – 3 J** **72 – 10 J**	**I**
	i-TERM SA-B **i-TERM SA-K**		**No – 3 J** **Yes – 10 J**	**No – 3 J** **50 – 10 J**	**II**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **No – 10 J**	**25 – 3 J** **56 – 10 J**	**I**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **No – 10 J**	**30 – 3 J** **52 – 10 J**	**I**

Table 17

Impact resistance (products tested after hygrothermal cycles on the rig or after immersion in water)					
ETICS configuration requirements:			**Cracks**	**Max. impact diameter [mm]**	**Impact resistance category**
Base coat	**Finishing coat**	**Reinforcement**			
i-TERM BIAŁY / CEMEX CX-D630	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	1x reinforcement only for type: **REDNET CB330 NOVA**	**No – 3 J** **Yes – 10 J**	**No – 3 J** **47 – 10 J**	**II**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**No – 3 J** **No – 10 J**	**25 – 3 J** **56 – 10 J**	**I**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**No – 3 J** **No – 10 J**	**No – 3 J** **48 – 10 J**	**I**
	i-TERM nSO-B **i-TERM nSO-K**		**No – 3 J** **No – 10 J**	**20 – 3 J** **41 – 10 J**	**I**
	i-TERM SA-B **i-TERM SA-K**		**No – 3 J** **Yes – 10 J**	**No – 3 J** **Yes-10 J**	**I**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**No – 3 J** **No – 10 J**	**21 – 3 J** **47 – 10 J**	**I**
	i-TERM BIO-B **i-TERM BIO-K**		**No – 3 J** **No – 10 J**	**19 – 3 J** **65 – 10 J**	**I**

3.2.5 Water vapour permeability of the rendering system (equivalent air thickness s_d)

Table 18

Water vapour permeability of the rendering system (equivalent air thickness s_d)				
ETICS configuration requirements:			**Equivalent air thickness s_d [m]**	
Base coat	**Finishing coat**	**Key coat**	1x reinforcement	2x reinforcements: (all types of reinforcements of Table 1 without REDNET CB330 NOVA) and 1x reinforcement: REDNET CB330 NOVA
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	In accordance with adequate key coat of Table 1	**0.3**	**0.3**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**0.4**	**0.5**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.4**	**0.5**
	i-TERM nSO-B **i-TERM nSO-K**		**0.2**	**0.2**
	i-TERM SA-B **i-TERM SA-K**		**0.3**	**0.3**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.4**	**0.4**
	i-TERM BIO-B **i-TERM BIO-K**		**0.4**	**0.4**

Table 19

Water vapour permeability of the rendering system (equivalent air thickness s_d)				
ETICS configuration requirements:			**Equivalent air thickness s_d [m]**	
Base coat	**Finishing coat**	**Key coat**	1x reinforcement	2x reinforcements: (all types of reinforcements of Table 1 without REDNET CB330 NOVA) and 1x reinforcement: REDNET CB330 NOVA
i-TERM BIAŁY / CEMEX CX-D630	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	In accordance with adequate key coat of Table 1	**0.3**	**0.3**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**0.4**	**0.5**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.4**	**0.5**
	i-TERM nSO-B **i-TERM nSO-K**		**0.2**	**0.3**
	i-TERM SA-B **i-TERM SA-K**		**0.3**	**0.3**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.4**	**0.4**
	i-TERM BIO-B **i-TERM BIO-K**		**0.5**	**0.5**

Table 20

Water vapour permeability of the rendering system (equivalent air thickness s_d)				
ETICS configuration requirements:			**Equivalent air thickness s_d [m]**	
Base coat	**Finishing coat**	**Key coat**	1x reinforcement	2x reinforcements: (all types of reinforcements of Table 1 without REDNET CB330 NOVA) and 1x reinforcement: REDNET CB330 NOVA
i-TERM BIAŁY / CEMEX CX-D630	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** **i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** with all types of protection coats	Without key coat	**0.3**	**0.3**
	i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** **i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK**		**0.4**	**0.5**
	i-TERM SO-B / CEMEX CX-D830 (struktura baranek) **i-TERM SO-K / CEMEX CX-D830 (struktura kornik)**		**0.4**	**0.5**
	i-TERM nSO-B **i-TERM nSO-K**		**0.3**	**0.3**
	i-TERM SA-B **i-TERM SA-K**		**0.3**	**0.3**
	i-TERM SISI-B / CEMEX CX-D820 (struktura baranek) **i-TERM SISI-CB** **i-TERM SISI-K / CEMEX CX-D820 (struktura kornik)** **i-TERM SISI-CK**		**0.3**	**0.3**
	i-TERM BIO-B **i-TERM BIO-K**		**0.4**	**0.4**

3.3 Safety and accessibility in use (BWR 4)

3.3.1 Bond strength between the base coat and the thermal insulation product (mortar or paste)

Table 21

Bond strength between the base coat and the thermal insulation product (mortar or paste)					
ETICS configuration requirements:		**Conditioning before the test**	**Rupture type**	**Bond strength [kPa]**	
Insulation product	**Base coat**			**Min.**	**Mean**
EPS 70F In accordance with Table 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600**	Initial state (dry condition)	In the insulation product	**110**	**120**
		After hygrothermal cycles	In the insulation product	**100**	**100**
	i-TERM BIAŁY / CEMEX CX-D630	Initial state (dry condition)	In the insulation product	**110**	**120**
		After hygrothermal cycles	In the insulation product	**100**	**100**

3.3.2 Bond strength between the adhesive and the substrate

Table 22

Bond strength between the adhesive and the substrate					
ETICS configuration requirements:		**Conditioning before the test**	**Rupture type**	**Bond strength [kPa]**	
Substrate	**Adhesive (and tested thickness)**			**Min.**	**Mean**
Concrete	**i-TERM 1 / stopTERM 1 / i-TERM 1 GRAFIT / BauMaster Thermo S 1 / CEMEX CX-D320**	Initial state (dry condition)	In the adhesive	**720**	**790**
		2 days immersion and 2 hours drying	In the adhesive	**420**	**500**
		2 days immersion and min. 7 days drying	In the concrete	**930**	**1040**
	i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600	Initial state (dry condition)	In the adhesive	**620**	**800**
		2 days immersion and 2 hours drying	In the adhesive	**590**	**550**
		2 days immersion and min. 7 days drying	In the concrete	**910**	**1050**
	i-TERM BIAŁY / CEMEX CX-D630	Initial state (dry condition)	In the adhesive	**660**	**690**
		2 days immersion and 2 hours drying	In the adhesive	**390**	**460**
		2 days immersion and min. 7 days drying	In the concrete	**700**	**770**

3.3.3 Bond strength between the adhesive and the thermal insulation product

Table 23

Bond strength between the adhesive and the thermal insulation product					
ETICS configuration requirements:		**Conditioning before the test**	**Rupture type**	**Bond strength [kPa]**	
Insulation product	**Adhesive (and tested thickness)**			**Min.**	**Mean**
EPS 70F In accordance with Table 1	**i-TERM 1 / stopTERM 1 / i-TERM 1 GRAFIT / BauMaster Thermo S 1 / CEMEX CX-D320**	Initial state (dry condition)	In the insulation product	**120**	**130**
		2 days immersion and 2 hours drying	In the insulation product	**100**	**100**
		2 days immersion and min. 7 days drying	In the insulation product	**110**	**120**
	i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600	Initial state (dry condition)	In the insulation product	**100**	**110**
		2 days immersion and 2 hours drying	In the insulation product	**90**	**90**
		2 days immersion and min. 7 days drying	In the insulation product	**100**	**120**
	i-TERM BIAŁY / CEMEX CX-D630	Initial state (dry condition)	In the insulation product	**110**	**115**
		2 days immersion and 2 hours drying	In the insulation product	**100**	**104**
		2 days immersion and min. 7 days drying	In the insulation product	**107**	**109**

3.3.4 Wind load resistance of ETICS – pull-through tests of fixings

Table 24

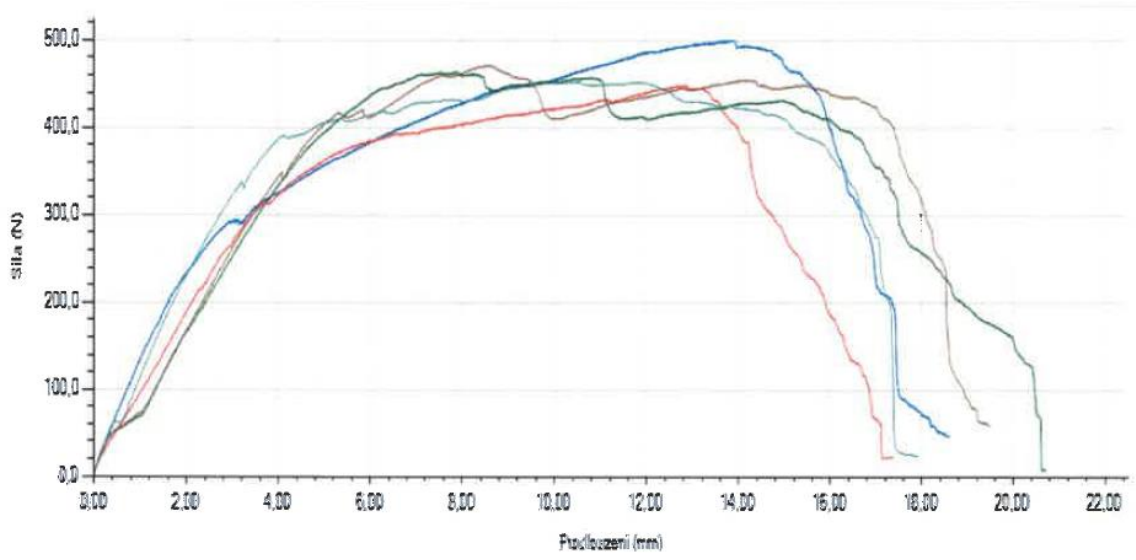
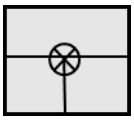
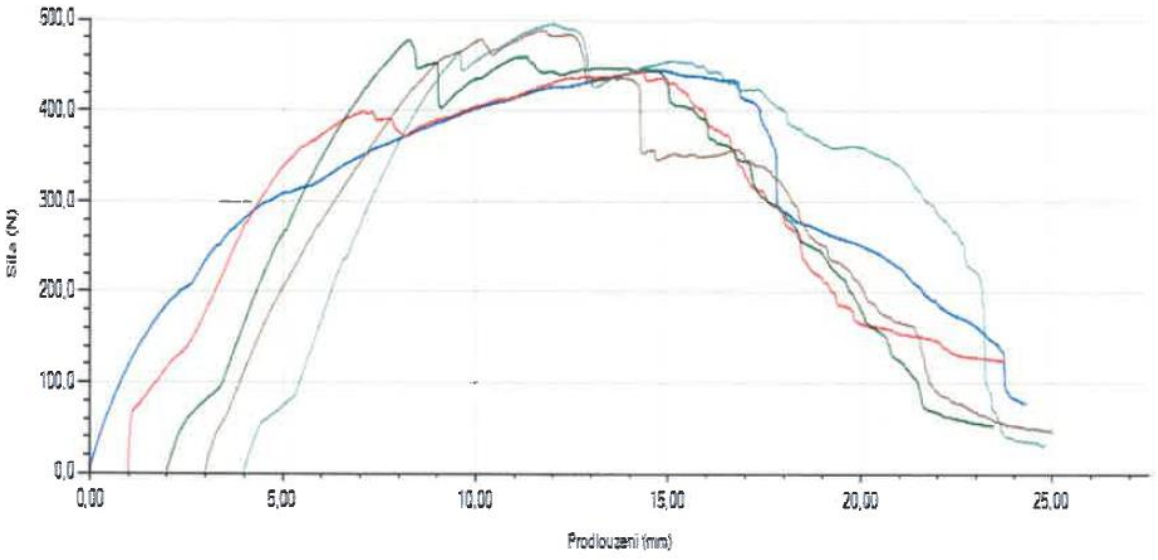
Wind load resistance of ETICS					
Assessed by means of: pull-through tests of fixings					
ETICS configuration requirements:		**Tested position**	**Test conditions**	**Failure load per fixing [kN]**	
Insulation product	**Fixing**			**Individual**	**Mean**
EPS 70F In accordance with Table 1 Thickness: ≥ 50 mm or ≥ 70 mm for countersunk assembly Tensile strength in dry condition: ≥ 109 kPa	Surface assembly or countersunk assembly with Anchors in accordance with Annex No. 3 Plate diameter: ≥ 60 mm Plate stiffness: ≥ 0.3 kN/mm	R_{panel} ⊗	Dry condition 23 °C and 50 % relative humidity of air	**0.500** **0.449** **0.463** **0.471** **0.453**	**0.47**
Load / displacement graph:					
					

Table 25

Wind load resistance of ETICS					
Assessed by means of: pull-through tests of fixings					
ETICS configuration requirements:		**Tested position**	**Test conditions**	**Failure load per fixing [kN]**	
Insulation product	**Fixing**			**Individual**	**Mean**
EPS 70F In accordance with Table 1 Thickness: ≥ 50 mm or ≥ 70 mm for countersunk assembly Tensile strength in dry condition: ≥ 109 kPa	Surface assembly or countersunk assembly with Anchors in accordance with Annex No. 3 Plate diameter: ≥ 60 mm Plate stiffness: ≥ 0.3 kN/mm	R_{joint} 	Dry condition 23 °C and 50 % relative humidity of air	**0.446** **0.444** **0.478** **0.490** **0.496**	**0.47**
Load / displacement graph:					
					

3.3.5 Render strip tensile test

Table 26

Render strip tensile test					
ETICS configuration requirements:		**w_{rk} of the flat side of the test specimen [mm]**		**w_{rk} of the patterned side of the test specimen [mm]**	
Base coat	**Reinforcement**	**Warp direction**	**Weft direction**	**Warp direction**	**Weft direction**
i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600	**R 117 A101 / AKE 145**	0.14	0.05	No performance assessed	
	R 131 A101 / AKE 160	0.05	0.05	No performance assessed	
	R 167 A101	0.05	0	No performance assessed	
	REDNET CB330 NOVA	0	0	0	0
	SSA-1363-4 SM	0.05	0	0	0
i-TERM BIAŁY / CEMEX CX-D630	**R 117 A101 / AKE 145**	0.05	0.10	No performance assessed	
	R 131 A101 / AKE 160	0.05	0.05	No performance assessed	
	R 167 A101	0	0	No performance assessed	
	REDNET CB330 NOVA	0	0	0	0
	SSA-1363-4 SM	0.05	0.05	0	0

3.3.6 Bond strength after ageing of finishing coat tested in the rig

Table 27

Bond strength after ageing of finishing coat tested in the rig						
ETICS configuration requirements:				**Rupture type**	**Bond strength [kPa]**	
Insulation product	**Base coat**	**Finishing coat**	**Key coat Decorative coat**		**Individual**	**Mean**
EPS 70F In accordance with Table 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Average thickness 4 mm	**i-TERM TM-B / CEMEX CX-D800 (struktura baranek)** max. particle size 2.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA EGALIZACYJNA**	In the insulation product	**140**	**130**
					140	
					90	
					150	
					110	
		i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) i-TERM TA-CB max. par. size 2.0mm	In accordance with Table 1		**160**	**140**
					130	
					140	
					150	
					130	
		i-TERM SO-B / CEMEX CX-D830 (struktura baranek) max. particle size 2.0 mm			**160**	**150**
					150	
					150	
					150	
					130	
		i-TERM SA-B max. particle size 2.0 mm			**130**	**120**
					120	
					140	
					110	
					120	
		i-TERM nSO-B max. particle size 1.5 mm			**100**	**100**
					110	
					100	
					100	
					100	
		i-TERM SA-K max. particle size 1.5 mm			**100**	**100**
					110	
					100	
					100	
					100	
		i-TERM BIO-K max. particle size 0.5 mm			**80**	**90**
					80	
					90	
					90	
					90	

Table 28

Bond strength after ageing of finishing coat tested in the rig						
ETICS configuration requirements:				**Rupture type**	**Bond strength [kPa]**	
Insulation product	**Base coat**	**Finishing coat**	**Key coat Decorative coat**		**Individual**	**Mean**
EPS 70F In accordance with Table 1	**i-TERM BIAŁY / CEMEX CX-D630** Average thickness 4 mm	**i-TERM SA-K** max. particle size 0.5 mm	In accordance with Table 1	In the insulation product	**120**	**110**
					100	
					110	
					100	
					110	
		i-TERM BIO-K max. particle size 0.5 mm			**110**	**110**
					110	
					100	
					120	
					110	
		i-TERM TM-B / CEMEX CX-D800 (struktura baranek) max. particle size 0.5 mm			**130**	**120**
					110	
					110	
					110	
					120	
		i-TERM TA-B / BauMaster Thermo S TA-B / CEMEX CX-D810 (struktura baranek) **i-TERM TA-CB** max. particle size 0.5 mm			**120**	**120**
					120	
					110	
					120	
					110	

3.3.7 Bond strength after ageing of finishing coat not tested in the rig

Table 29

Bond strength after ageing of finishing coat NOT tested in the rig						
ETICS configuration requirements:				Rupture type	Bond strength [kPa]	
Insulation product	Base coat	Finishing coat	Key coat Decorative coat		Individual	Mean
EPS 70F In accordance with Table 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Average thickness 4 mm	**i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SA**	In the insulation product	**120** **140** **130** **130** **120**	**130**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA AK / CEMEX CX-D910**		**140** **150** **140** **110** **100**	**130**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SO / i-TERM FARBA SO-C / i-TERM FARBA nSO / CEMEX CX-D930**		**140** **150** **130** **120** **130**	**130**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SISI / CEMEX CX-D920**		**130** **100** **120** **110** **110**	**110**
		i-TERM TA-K / BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik) **i-TERM TA-CK** max. particle size 3.0 mm	In accordance with Table 1		**140** **130** **130** **140** **150**	**140**

EPS 70F In accordance with Table 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Average thickness 4 mm	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** max. particle size 3.0 mm	In accordance with Table 1	In the insulation product	**120**	**130**
					130	
					130	
					140	
					150	
		i-TERM SA-K max. particle size 3.0 mm			**140**	**130**
					100	
					150	
					120	
					130	
		i-TERM SISI-K / CEMEX CX-D820 (struktura kornik) **i-TERM SISI-CK** max. particle size 3.0 mm			**110**	**120**
					130	
					100	
					120	
					120	

Table 30

Bond strength after ageing of finishing coat NOT tested in the rig						
ETICS configuration requirements:				**Rupture type**	**Bond strength [kPa]**	
Insulation product	**Base coat**	**Finishing coat**	**Key coat** **Decorative coat**		**Individual**	**Mean**
EPS 70F In accordance with Table 1	**i-TERM BIAŁY / CEMEX CX-D630** Average thickness 4 mm	**i-TERM TM-K / CEMEX CX-D800 (struktura kornik)** max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SA**	In the insulation product	**120** **120** **110** **130** **110**	**120**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA AK / CEMEX CX-D910**		**110** **100** **100** **120** **110**	**110**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SO / i-TERM FARBA SO-C / i-TERM FARBA nSO / CEMEX CX-D930**		**120** **130** **120** **100** **110**	**120**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA SISI / CEMEX CX-D920**		**130** **120** **100** **110** **120**	**120**
		i-TERM TM-K / CEMEX CX-D800 (struktura kornik) max. particle size 3.0 mm	Key coat in accordance with Table 1 **i-TERM FARBA EGALIZACYJNA**		**100** **110** **120** **100** **100**	**110**
		i-TERM TA-K / **BauMaster Thermo S TA-K / CEMEX CX-D810 (struktura kornik)** **i-TERM TA-CK** max. particle size 3.0 mm	In accordance with Table 1		**110** **110** **120** **100** **110**	**110**

EPS 70F In accordance with Table 1	**i-TERM 2 / stopTERM 2 / i-TERM 2 GRAFIT / BauMaster Thermo S 2 / CEMEX CX-D430 / CEMEX CX-D600** Average thickness 4 mm	**i-TERM SO-K / CEMEX CX-D830 (struktura kornik)** max. particle size 3.0 mm	In accordance with Table 1	In the insulation product	**130**	**120**
					110	
					120	
					120	
					100	
		i-TERM nSO-B max. particle size 3.0 mm			**90**	**90**
					90	
					100	
					80	
					90	
		i-TERM SA-K max. particle size 3.0 mm			**100**	**120**
					120	
					110	
					130	
					140	
		i-TERM SISI-K / CEMEX CX-D820 (struktura kornik) **i-TERM SISI-CK** max. particle size 3.0 mm			**120**	**120**
					130	
					120	
					100	
					110	

3.4 Protection against noise (BWR 5)

3.4.1 Thermal resistance and thermal transmittance of ETICS

Table 31

Thermal resistance and thermal transmittance of ETICS (R_{ETICS})	
Thermal resistance	**[(m²·K)/W]**
R_{render}	**0.02**
R_{ETICS}	**≥ 1.00**
See Annex No. 1 for information on calculation of thermal transmittance of ETICS	

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

According to the Decision 97/556/EC as amended by Decision 2001/596/EC of the European Commission the systems of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table apply.

Table 32

Product	Intended uses	Class(es) (reaction to fire)	Systems of assessment and verification of constancy of performance
External thermal insulation composite system/kits with rendering (ETICS)	in external wall subject to fire regulations	**A**(1) **– B**(1) **– C**(1)	**1**
		A(2) – **B**(2) – **C**(2) **A** (without testing) **D – E – F**	**2+**
	in external wall not subject to fire regulations	any	**2+**
(1) Materials for which the reaction to fire performance is susceptible to change during the production process (2) Materials for which the reaction to fire performance is not susceptible to change during the production process			

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD: 040083-00-0404

The manufacturer and the Technical and Test Institute for Construction Prague have agreed on a Control Plan which is deposited at the Technical and Test Institute for Construction Prague and it accompanies the ETA. The Control Plan specifies the type and frequency of checks/tests conducted on raw materials, manufactured and subcontracted components.

The manufacturer has defined special techniques of installation that shall always be followed.

Installation shall be done by qualified personnel trained in the special installation techniques defined by the manufacturer.

Notified body has to carry out the initial inspection of the manufacturing plant and of factory production control. Notified body also carries out continuous surveillance, assessment and evaluation of factory production control at least once per year.

Issued in Prague on 16/07/2022

by

Ing. Jiří Studnička, Ph.D.
Head of the Technical Assessment Body (TAB)

Annexes:

Annex No. 1	Thermal transmittance of ETICS
Annex No. 2	Thermal insulation product 1 – expanded polystyrene (EPS)
Annex No. 3	Mechanical fixing device – anchors
Annex No. 4	Reinforcement – glass fibre mesh

Annex No. 1 Thermal transmittance of ETICS

$$\boldsymbol{U_c = U + \Delta U}\ [W/m^2 \cdot K]$$

U_c is corrected thermal transmittance of the entire wall, including thermal bridges.

U is thermal transmittance of the entire wall, including ETICS, without thermal bridges.

ΔU is correction term of the thermal transmittance for mechanical fixing devices.

$$\boldsymbol{U = \frac{1}{R_{ETICS} + R_{substrate} + R_{se} + R_{si}}}\ \boldsymbol{[W/m^2 \cdot K]}$$

$$R_{ETICS} = R_{insulation} + R_{render}\ [m^2 \cdot K/W]$$

Where: $R_{insulation}$ = insulation thickness / thermal conductivity coefficient [m^2·K/W]

R_{render} = 0.02 [m^2·K/W]

$R_{substrate}$ thermal resistance of the substrate wall [m^2·K/W].

R_{se} external surface thermal resistance [m^2·K/W].

R_{si} internal surface thermal resistance [m^2·K/W].

$$\boldsymbol{\Delta U = \chi_P \times n + \sum \Psi i \times l_i}\ \boldsymbol{[m^2 \cdot K/W]}$$

Where: χ_P is point thermal transmittance value of the anchor [W/K]. Specified by the ETA for anchors or as follows:

0.002 [W/K]	For anchors with a plastic screw/nail, stainless steel screw/nail with the head covered by at least 15 mm plastic material, or with a minimum 15 mm air gap at the head of the screw/nail.
0.004 [W/K]	For anchors with a galvanized carbon steel screw/nail with the head covered by at least 15 mm plastic material or a minimum 15 mm air gap at the head of the screw /nail.
0.008 [W/K]	For all other anchors (the worst case).

n is number of anchors per m^2. In case n is more than 16, the U_c calculation does not apply.

Ψ_i is linear thermal transmittance value of the profile [W/m·K].

l_i is length of the profile per m^2.

The influence of thermal bridges can also be calculated as described in EN ISO 10211. If there are more than 16 pcs of anchors per m^2 the declared χ_P shall not be used. The EN ISO 10211 calculation shall be used in such case.

Annex No. 2 Thermal insulation product 1 – expanded polystyrene (EPS)

Factory made expanded polystyrene (EPS)	
Generic type	
Requirements:	
Harmonized technical specification:	EN 13163
Content of graphite:	Not allowed
Composite insulation product:	No
Multi-layered insulation product	No
Facing:	No
Coating:	No
Max. thermal conductivity coefficient λ_D:	max. 0.065 W/(m·K)
Short-term water absorption:	max. 1.0 kg/m^2
Length:	L(2)
Width:	W(1)
Thickness:	T(1)
Squareness in the direction of length and width:	S(2)
Flatness:	P(3)
Dimensional stability:	DS(70,–)1 DS(N)2
Reaction to fire of thermal insulation material:	E
Water vapour permeability of thermal insulation product (water-vapour resistance factor) μ:	20 – 70 [-]
Tensile test perpendicular to the faces of the thermal insulation product – in dry conditions:	min. 100 kPa
Shear strength:	min. 20 kPa
Shear modulus:	min. 1000 kPa

Annex No. 3 Mechanical fixing device – anchors

Plastic anchors for fixing external thermal insulation composite systems with rendering	
Generic type	
Requirements:	
Harmonized technical specification:	ETAG 014 or EAD 330196-00-0604 or EAD 330196-01-0604 or superseding harmonized technical specification
Setting:	to be screwed-in or nailed-in and: 1) to be installed flush with the insulation product with or without additional, flat, plate 2) to be installed countersunk (incision depth max. 20 mm) to the surface of the insulation product, without additional plate does not apply to multi-layered insulation products
Diameter of the anchor plate:	min. 60 mm
Load resistance of the anchor plate:	min. 1.55 kN
Plate stiffness:	min. 0.6 kN/mm
Material of the nail	plastics or metal

Annex No. 4 Reinforcement – glass fibre mesh

Standard glass fibre mesh	
Generic type: **R 117 A101 / AKE 145**	
Requirements:	
Harmonized technical specification:	040016-00-0404 or 040016-01-0404 or superseding harmonized technical specification
Mass per unit area	0.14 to 0.18 kg/m^2
Heat of combustion:	Max. 6.64 MJ/kg
Residual tensile strength retained after alkaline conditioning:	in warp direction: min. 20 N/mm in weft direction: min. 20 N/mm
Residual tensile strength after alkaline ageing	in warp direction: min. 50 % in weft direction: min. 50 %
Mesh opening:	in warp direction: 3.5 to 4.5 mm in weft direction: 4.0 to 5.0 mm
Generic type: **R 131 A101 / AKE 160**	
Requirements:	
Harmonized technical specification:	040016-00-0404 or 040016-01-0404 or superseding harmonized technical specification
Mass per unit area	0.16 to 0.176 kg/m^2
Heat of combustion:	Max. 5.80 MJ/kg
Residual tensile strength retained after alkaline conditioning:	in warp direction: min. 20 N/mm in weft direction: min. 20 N/mm
Residual tensile strength after alkaline ageing	in warp direction: min. 50 % in weft direction: min. 50 %
Mesh opening:	in warp direction: 3.0 to 4.0 mm in weft direction: 3.3 to 4.2 mm
Generic type: **R 167 A101**	
Requirements:	
Harmonized technical specification:	040016-00-0404 or 040016-01-0404 or superseding harmonized technical specification
Mass per unit area	0.167 kg/m^2
Heat of combustion:	Max. 6.64 MJ/kg
Residual tensile strength retained after alkaline conditioning:	in warp direction: min. 20 N/mm in weft direction: min. 20 N/mm
Residual tensile strength after alkaline ageing	in warp direction: min. 50 % in weft direction: min. 50 %
Mesh opening:	in warp direction: 6.0 mm in weft direction: 7.0 mm

Standard glass fibre mesh	
Generic type: **REDNET CB330 NOVA**	
Requirements:	
Harmonized technical specification:	040016-00-0404 or 040016-01-0404 or superseding harmonized technical specification
Mass per unit area	0.14 to 0.18 kg/m^2
Heat of combustion:	Max. 6.64 MJ/kg
Residual tensile strength retained after alkaline conditioning:	in warp direction: min. 20 N/mm in weft direction: min. 20 N/mm
Residual tensile strength after alkaline ageing	in warp direction: min. 50 % in weft direction: min. 50 %
Mesh opening:	in warp direction: 6.0 mm in weft direction: 5.0 mm
Standard glass fibre mesh	
Generic type: **SSA-1363-4 SM**	
Requirements:	
Harmonized technical specification:	040016-00-0404 or 040016-01-0404 or superseding harmonized technical specification
Mass per unit area	0.165 kg/m^2
Heat of combustion:	Max. 6.64 MJ/kg
Residual tensile strength retained after alkaline conditioning:	in warp direction: min. 20 N/mm in weft direction: min. 20 N/mm
Residual tensile strength after alkaline ageing	in warp direction: min. 50 % in weft direction: min. 50 %
Mesh opening:	in warp direction: 4.0 mm in weft direction: 5.0 mm