



Designated according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2020

UK Technical Assessment	UKTA-0836-23/6762 of 23/03/2023
Technical Assessment Body issuing the UK Technical Assessment:	British Board of Agrément
Trade name of the construction product:	TERRIX ⁽¹⁾ EWI-W1 (1) Registered trademark
Product family to which the construction product belongs:	External Thermal Insulation Composite Systems (ETICS) with rendering
Manufacturer:	PCC MORAVA- CHEM s.r.o. Leose Janacka 798/20 737 01 Cesky Tesin. CZECH REPUBLIC
Manufacturing plant(s):	1) Manufacturing Plant A 2) Manufacturing Plant B
This UK Technical Assessment contains:	24 pages including 3 Annexes which form an integral part of this assessment.
This UK Technical Assessment is issued in accordance with The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 on the basis of:	UKAD 040083-00-0404 External thermal insulation composite systems (ETICS) with renderings

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1. Technical description of the product

This product TERRIX EWI-W1 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 UKTA.

The ETICS kit comprises a prefabricated insulation product of mineral wool (MW) to be bonded or mechanically fixed onto a wall. The method of fixing and the relevant components are specified in Table 1. 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 UKTA. however the ETICS manufacturer is responsible for adequate compatibility and performance within the ETICS when the components are delivered as a part of the kit.

Table 1:

	Components	Coverage (kg·m ⁻²)	Thickness (mm)
	Bonded ETICS; fully bonded with supplementary mechanical fixings. National application documents shall be considered.		
Insulation materials with associated methods of fixing	<ul style="list-style-type: none"> • Insulation product: Mineral wool (MW) lamella according to EN 13162 <i>Product characteristics - see Annex 1</i> 	-	50 to 250
	<ul style="list-style-type: none"> • Adhesives: <ul style="list-style-type: none"> - TERRIX AD-AW Cement based powder requiring addition of 0.20-0.23 l·kg⁻¹ of water - TERRIX AD-BW Cement based powder requiring addition of 0.20-0.23 l·kg⁻¹ of water 	5.0 to 5.5	-
	<ul style="list-style-type: none"> • Supplementary mechanical fixings: Plastic anchors covered by relevant UKTA 	-	-

Table 1 continued:

Insulation materials with associated methods of fixing	<ul style="list-style-type: none"> • Insulation product: Mineral wool (MW) boards. standard and double density. according to EN 13162 <i>Products characteristics - see Annex 1</i> 		50 to 250
	<ul style="list-style-type: none"> • Adhesives: - TERRIX AD-AW Cement based powder requiring addition of 0.20-0.23 l·kg⁻¹ of water - TERRIX AD-BW Cement based powder requiring addition of 0.20-0.23 l·kg⁻¹ of water 	5.0 to 5.5 5.0 to 5.5	
	<ul style="list-style-type: none"> • Anchors <i>Products characteristics - see Annex 2</i> 		
Base coat	<ul style="list-style-type: none"> • TERRIX AD-BW Cement based powder requiring addition of 0.20-0.23 l·kg⁻¹ of water 	4.0 to 5.0	3.0 to 5.0
Reinforcement	<ul style="list-style-type: none"> • Standard glass fibre meshes: <ul style="list-style-type: none"> • TERRIX AC-MS 145 • TERRIX AC-MS AG 145 • TERRIX AC-MS V 145 • TERRIX AC-MS 150 • TERRIX AC-MS 160 • TERRIX AC-MS AG 160 • TERRIX AC-MS 165 • TERRIX AC-MS 175 • Reinforced glass fibre mesh: <ul style="list-style-type: none"> • TERRIX AC-MH 335 <p><i>Products characteristics - see Annex 3</i></p>		
Key coats	<ul style="list-style-type: none"> • TERRIX PR-PS-R Ready to use liquid to be used with silicate (polysilicate) finishing coats • TERRIX PR-SN-R Ready to use liquid to be used with silicone finishing coats 	0.20 to 0.25 0.20 to 0.25	

Table 1 continued:

<p>Key coats</p>	<ul style="list-style-type: none"> • TERRIX PR-MN-R Ready to use liquid to be used with mineral finishing coats except TERRIX RD-MN md finishing coat • TERRIX PR-SS-R Ready to use liquid to be used with silicate-silicone finishing coat • TERRIX PR-AG-R Ready to use liquid to be used with TERRIX RD-MN md finishing coat 	<p>0.23 to 0.25</p> <p>0.23 to 0.25</p> <p>0.20 to 0.25</p>	
<p>Finishing coats</p>	<p>Mineral finishing coats:</p> <p>Cement based powders requiring addition of specific amount of water as described as below:</p> <ul style="list-style-type: none"> • TERRIX RD-MN Powder requiring addition of 0.19-0.25 l·kg⁻¹ of water structure - maximum particles size: floated - 1.5; 2.0; 3.0 mm • TERRIX RD-MN-w Powder requiring addition of 0.19-0.25 l·kg⁻¹ of water structure - maximum particles size: ribbed - 1.5; 2.0; 3.0 mm • TERRIX RD-MN-S (pneumatically applied) powder requiring addition of 0.22-0.25 l·kg⁻¹ of water structure - maximum particles size: floated 1.5 mm • TERRIX RD-MN md Powder requiring addition of 0.19-0.21 l·kg⁻¹ of water structure - maximum particles size: decorative in accordance with the manufacturer's catalogue - 0.5 mm <p>TERRIX RD-MN deco. spread structure, consisting of:</p> <ul style="list-style-type: none"> • TERRIX RD-MN Powder requiring addition of 0.19-0.25 l·kg⁻¹ of water structure - max. particles size: floated - 1.5; 2.0; 3.0 mm <p>and</p> <ul style="list-style-type: none"> • TERRIX RN-LF Powder requiring addition of 0.22-0.28 l·kg⁻¹ of water structure - max. particles size: floated - 0.5 + 1.2 mm 	<p>2.5 to 4.0 (powder)</p> <p>2.5 to 4.0 (powder)</p> <p>3.0 (powder)</p> <p>4.0 to 4.5 (powder)</p> <p>2.5 to 4.0 (powder)</p> <p>1.5 to 2.0 (powder)</p>	<p>Regulated by particles size</p>

Table 1 continued:

	Components	Coverage (kg·m ⁻²)	Thickness (mm)
Finishing coats	Mineral-silicate finishing coat:		
	TERRIX RD-MN / TERRIX RD-PS md-deco. spread structure, consisting of:		
	<ul style="list-style-type: none"> • TERRIX RD-MN Powder requiring addition of 0.19-0.25 l·kg⁻¹ of water structure - maximum particles size: floated - 1.5; 2.0; 3.0 mm 	2.5 to 4.0 (powder)	
	and		
	<ul style="list-style-type: none"> • TERRIX RD-PS md Ready to use paste - silicate binder structure - maximum particles size: floated - 0.5 mm 	1.5 to 2.0	
	Silicone finishing coats. Ready to use pastes - silicone binder:		
	<ul style="list-style-type: none"> • TERRIX RD-SN Structure - maximum particles size: floated - 1.5; 2.0; 2.5; 3.0 mm 	2.3 to 4.5	Regulated by particles size
	<ul style="list-style-type: none"> • TERRIX RD-SN-w Structure - maximum particles size: ribbed - 1.5; 2.0; 2.5; 3.0 mm 	2.3 to 4.5	
	<ul style="list-style-type: none"> • TERRIX RD-SN-S (pneumatically applied) Structure - maximum particles size: floated - 1.5 mm 	2.2	
	<ul style="list-style-type: none"> • TERRIX RD-SN deco. spread structure. consisting of: <ul style="list-style-type: none"> • TERRIX RD-SN Structure - maximum particles size: floated - 1.5; 2.0; 2.5; 3.0 mm 	2.3 to 4.5	
and			
<ul style="list-style-type: none"> • TERRIX RD-SN md Structure - maximum particles size: floated - 0.5 mm 	1.5 to 2.0		
<ul style="list-style-type: none"> • TERRIX RD-SN-B Structure - maximum particles size: floated - 1.5; 2.0 mm 	2.5 to 3.0		

Table 1 continued:

<p>Finishing coats</p>	<ul style="list-style-type: none"> • Silicate (polysilicate) finishing coats. Ready to use pastes - silicate binder: <ul style="list-style-type: none"> • TERRIX RD-PS Structure - maximum particles size: floated - 1.5; 2.0; 2.5; 3.0 mm TERRIX RD-PS-w Structure - maximum particles size: ribbed - 1.5; 2.0; 2.5; 3.0 mm • TERRIX RD-PS-S (pneumatically applied) Structure - maximum particles size: floated - 1.5; 2.0 mm - TERRIX RD-PS deco. Spread structure, consisting of: <ul style="list-style-type: none"> TERRIX RD-PS Structure - maximum particles size: floated - 1.5; 2.0; 2.5; 3.0 mm and <ul style="list-style-type: none"> TERRIX RD-PS md Structure - maximum particles size: floated - 0.5 mm • Silicate-silicone finishing coat. Ready to use paste - silicate-silicone binder: <ul style="list-style-type: none"> • TERRIX RD-SS Structure - maximum particles size: floated - 1.5; 2.0 mm 	<p>2.5 to 4.5</p> <p>2.5 to 4.5</p> <p>2.2 to 2.8</p> <p>2.5 to 4.5</p> <p>1.5 to 2.0</p> <p>2.5 to 3.0</p>	<p>Regulated by particles size</p>
<p>Key coats</p>	<ul style="list-style-type: none"> • TERRIX PR-SN-P Ready to use liquid to be used optionally with TERRIX RD-MN. TERRIX RD-MN-w finishing coats and TERRIX EP-SN / TERRIX EP-SN-B or TERRIX EP-SN-M decorative coats • TERRIX PR-PS-P Ready to use liquid to be used optionally with TERRIX RD-MN. TERRIX RD-MN-w finishing coats and TERRIX EP-PS decorative coat • TERRIX PR-ST-P Ready to use liquid to be used optionally with TERRIX RD-MN. TERRIX RD-MN-w finishing coats and TERRIX EP-ST decorative coat • TERRIX PR-AC-P Ready to use liquid to be used obligatory with TERRIX EP-LT + TERRIX EP-AC-T decorative coats 	<p>0.18 to 0.20</p> <p>0.18 to 0.20</p> <p>0.18 to 0.20</p> <p>0.18 to 0.23</p>	

Table 1 continued:

Decorative coats (paints)	<ul style="list-style-type: none"> • Silicone decorative coat TERRIX EP-SN / TERRIX EP-SN-B Ready to use pigmented liquid to be used optionally with finishing coats: <ul style="list-style-type: none"> • TERRIX RD-MN, TERRIX RD-MN-w • TERRIX RD-MN-S • TERRIX RD-MN deco • TERRIX RD-SN, TERRIX RD-SN-w • TERRIX RD-SN-S 	0.20 to 0.25	
	<ul style="list-style-type: none"> • Silicone decorative coat TERRIX EP-SN-M Ready to use pigmented liquid to be used optionally with finishing coats: <ul style="list-style-type: none"> • TERRIX RD-MN, TERRIX RD-MN-w • TERRIX RD-SN, TERRIX RD-SN-w • TERRIX RD-SN-S • TERRIX RD-SN-B • TERRIX RD-SS 	0.20 to 0.25	
	<ul style="list-style-type: none"> • Silicate decorative coat TERRIX EP-PS Ready to use pigmented liquid to be used optionally with finishing coats: <ul style="list-style-type: none"> • TERRIX RD-MN, TERRIX RD-MN-w • TERRIX RD-MN-S • TERRIX RD-MN deco • TERRIX RD-PS, TERRIX RD-PS-w • TERRIX RD-PS-S 	0.20 to 0.25	
	<ul style="list-style-type: none"> • Silicate decorative coat TERRIX EP-ST Ready to use pigmented liquid to be used optionally with finishing coats: <ul style="list-style-type: none"> • TERRIX RD-MN, TERRIX RD-MN-w • TERRIX RD-MN-S • TERRIX RD-MN deco 	0.20 to 0.25	
	<ul style="list-style-type: none"> • Acrylic decorative coat TERRIX EP-LT Ready to use pigmented liquid to be used obligatory with TERRIX RD-MN md finishing coat and TERRIX EP-AC-T decorative coat 	0.20 to 0.30	
	<ul style="list-style-type: none"> • Acrylic decorative coat TERRIX EP-AC-T Ready to use pigmented liquid to be used obligatory with TERRIX EP-LT decorative coat 	0.10 to 0.11	
Ancillary materials	Remain under the manufacturer's responsibilities		

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

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 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 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 is not intended to ensure the airtightness of the building structure.

The provisions made in this UK Technical Assessment are based on an assumed working life of the ETICS of at least 25 years, provided that the requirements for the packaging, transport, storage, installation as well as appropriate use, maintenance and repair are met. The indication given on the working life cannot be interpreted as a guarantee given by the manufacturer or the UK 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.

Design, installation, maintenance and repair of ETICS shall be done in accordance with principles introduced in UKAD 040083-00-0404 and shall be in conformity with The UK legislations requirements.

The instructions regarding packaging, transport, storage and installation of ETICS are specified in the manufacturer's technical documentation.

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

The performances of the kit as described in this chapter 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)

Table 2:

Configuration	Maximum heat of combustion [MJ·kg ⁻¹]	Flame retardant content	Class according to EN 13501-1
Adhesive	0.25	No flame retardant	A1
MW boards* <i>Density 90 kg·m⁻³</i>	-		
Base coat	0.25		
Glass fibre meshes covering: - AKE 145 - R 117 A101 - 03-43 - GG-145 - OPTIMA-NET 150 - AKE 170 - R 131 A101 - 03-1 - OPTIMA-NET 165	7.30		
Key coat: - TERRIX PR-MN-R	7.02		
Finishing coats covering: - TERRIX RD-MN, TERRIX RD-MN-w - TERRIX RD-MN-S - TERRIX RD-MN deco	0.47		
Decorative coat: - TERRIX EP-PS	1.53		
TERRIX EWI-W1 covering configurations not classified as A1			
Adhesive	0.25	No flame retardant	A2-s1, d0
MW boards* <i>Density 90 kg·m⁻³</i>	-		
Base coat	0.25		
Glass fibre meshes: - standard - reinforced	7.30 5.77		
Key coat	7.02		
Finishing coat	2.49		
Key coat	33.28		
Decorative coat	32.00		
*Organic content in quantity ensuring Class A1 according to EN 13501-1			

Note: UK reference fire scenario has not been laid down for facades. 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 might be necessary to comply with The UK regulations, until the existing UK classification system has been completed.

3.3. Health, hygiene and the environment (BWR 3)

3.3.1. Water absorption

- **Base coat TERRIX AD-BW:**

Water absorption after 1 hour < 1 kg·m⁻²

Water absorption after 24 hours < 0,5 kg·m⁻²

- **Rendering systems: Table 3.**

Table 3:

		Water absorption after 24 hours	
		<0,5 kg·m ⁻²	0,5 kg·m ⁻²
Rendering system: Base coat TERRIX AD-BW + relevant key coat + finishing coat indicated hereafter + relevant key coat + decorative coat indicated hereafter (if relevant):	TERRIX RD-MN, TERRIX RD-MN-w	X	-
	TERRIX RD-MN-S	X	-
	TERRIX RD-MN deco	X	-
	TERRIX RD-MN/TERRIX RD-PS md-deco	X	-
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	X	-
	TERRIX RD-SN, TERRIX RD-SN-w	X	-
	TERRIX RD-SN-S	X	-
	TERRIX RD-SN deco	X	-
	TERRIX RD-SN-B	X	-
	TERRIX RD-SS	X	-
	TERRIX RD-PS, TERRIX RD-PS-w	X	-
	TERRIX RD-PS-S	X	-
	TERRIX RD-PS deco	X	-

3.3.2. Watertightness

3.3.2.1. Hygrothermal behaviour - Pass (without defects).

3.3.2.2. Freeze-thaw behaviour ETICS is frost resistant according to water absorption test.

3.3.3. Impact resistance

Table 4:

		Single layer of standard mesh
<p>Rendering system:</p> <p>Base coat TERRIX AD-BW + relevant key coat + finishing coat indicated hereafter + relevant key coat + decorative coat indicated hereafter (if relevant):</p>	MW board according to Annex 1	
	TERRIX RD-MN, TERRIX RD-MN-w	Category II
	TERRIX RD-MN-S	Category III
	TERRIX RD-MN deco	Category III
	TERRIX RD-MN/TERRIX RD-PS md-deco	Category III
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	Category II
	TERRIX RD-SN, TERRIX RD-SN-w	Category II
	TERRIX RD-SN-S	Category II
	TERRIX RD-SN deco	Category III
	TERRIX RD-SN-B	Category II
	TERRIX RD-SS	Category II
	TERRIX RD-PS, TERRIX RD-PS-w	Category II
	TERRIX RD-PS-S	Category II
	TERRIX RD-PS deco	Category III
	MW double density board according to Annex 1	
	TERRIX RD-MN, TERRIX RD-MN-w	Category III
	TERRIX RD-MN-S	Category III
	TERRIX RD-MN deco	Category II
	TERRIX RD-MN/TERRIX RD-PS md-deco	Category II
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	Category II
	TERRIX RD-SN, TERRIX RD-SN-w	Category III
	TERRIX RD-SN-S	Category II
	TERRIX RD-SN deco	Category III
TERRIX RD-SN-B	Category II	
TERRIX RD-SS	Category II	
TERRIX RD-PS, TERRIX RD-PS-w	Category III	
TERRIX RD-PS-S	Category II	
TERRIX RD-PS deco	Category III	

Table 4 continued:

		Single layer of standard mesh
MW lamella according to Annex 1		
Rendering system: Base coat TERRIX AD-BW + relevant key coat + finishing coat indicated hereafter + relevant key coat + decorative coat indicated hereafter (if relevant):	TERRIX RD-MN, TERRIX RD-MN-w	Category II
	TERRIX RD-MN-S	Category III
	TERRIX RD-MN deco	Category II
	TERRIX RD-MN/TERRIX RD-PS md-deco	Category II
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	Category II
	TERRIX RD-SN, TERRIX RD-SN-w	Category III
	TERRIX RD-SN-S	Category II
	TERRIX RD-SN deco	Category II
	TERRIX RD-SN-B	Category II
	TERRIX RD-SS	Category II
	TERRIX RD-PS, TERRIX RD-PS-w	Category II
	TERRIX RD-PS-S	Category II
	TERRIX RD-PS deco	Category II

3.3.4. Water vapor permeability

Table 5:

		Average equivalent air thickness S_d
Rendering system: Base coat TERRIX AD-BW + relevant key coat + finishing coat indicated hereafter+ relevant key coat + decorative coat indicated hereafter (if relevant):	TERRIX RD-MN, TERRIX RD-MN-w + • TERRIX EP-SN / TERRIX EP-SN-B • TERRIX PR-SN-P + TERRIX EP-SN / TERRIX EP-SN-B • TERRIX EP-PS • TERRIX PR-PS-P + TERRIX EP-PS • TERRIX EP-ST • TERRIX PR-ST-P + TERRIX EP-ST • TERRIX PR-SN-P + TERRIX EP-SN-M	≤ 1 m, results: 0.3m 0.2m 0.3m 0.2m 0.2 m 0.2 m 0.2 m
	TERRIX RD-MN-S + • TERRIX EP-SN / TERRIX EP-SN-B • TERRIX EP-PS • TERRIX EP-ST	≤ 1 m, results: 0.2 m 0.2 m 0.2 m
	TERRIX RD-MN deco + • TERRIX EP-SN / TERRIX EP-SN-B • TERRIX EP-PS • TERRIX EP-ST	≤ 1 m, results: 0.2m 0.3m 0.2m
	TERRIX RD-MN / TERRIX	≤ 1 m, result:
	RD-PS md-deco	0.3 m
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	≤ 1 m, result: 0.3 m
	TERRIX RD-SN, TERRIX RD-SN-w + • Without decorative coat • TERRIX EP-SN / TERRIX EP-SN-B • TERRIX EP-SN-M	≤ 1 m, results: 0.3m 0.4 m 0.4 m
	TERRIX RD-SN-S + • without decorative coat • TERRIX EP-SN / TERRIX EP-SN-B • TERRIX EP-SN-M	≤ 1 m, results: 0.2m 0.2m 0.2m
	TERRIX RD-SN deco	≤ 1 m, result: 0.5 m
	TERRIX RD-SN-B + TERRIX EP-SN-M	≤ 1 m, result: 0.3 m
	TERRIX RD-SS + TERRIX EP-SN-M	≤ 1 m, result: 0.3 m
	TERRIX RD-PS, TERRIX RD-PS-w + • Without decorative coat • TERRIX EP-PS	≤ 1 m, result: 0.2 m 0.3 m
	TERRIX RD-PS-S + • Without decorative coat • TERRIX EP-PS	≤ 1 m, result: 0.2 m 0.2 m
	TERRIX RD-PS deco	≤ 1 m, result: 0.2 m

3.3.5. Release of dangerous substances

No performance assessed.

Note: There may be requirements applicable to the ETICS falling within its scope (e.g. transposed UK legislation and national laws, regulations and administrative provisions).

To meet the provisions of the Regulation (EU) No 305/2011, these requirements need to be complied with, when and where they apply.

3.4. Safety and accessibility in use (BWR 4)

3.4.1. Bond strength between base coat and insulation product

Base coat TERRIX AD-BW

- Initial state and after hygrothermal cycles: 0.08 MPa or failure into mineral wool

3.4.2. Bond strength between adhesive and substrate

Table 6:

	Initial state	48 h immersion in water + 2 hours 23°C/50% RH	48 h immersion in water + 7 days 23°C/50% RH
TERRIX AD-AW	≥0.25 Mpa	≥0.08 Mpa	≥0.25 Mpa
TERRIX AD-BW			

3.4.3. Bond strength between adhesive and insulation product

Table 7:

	Initial state	48 h immersion in water + 2 hours 23°C/50% RH	48 h immersion in water + 7 days 23°C/50% RH
TERRIX AD-AW	≥0.08 Mpa	≥0.03 Mpa	≥0.08 Mpa
TERRIX AD-BW			

3.4.4. Bond strength after ageing

Table 8:

		After hygrothermal cycles
Rendering system: Base coat TERRIX AD-BW + relevant key coat + finishing coat indicated hereafter + relevant key coat + decorative coat indicated hereafter (If relevant)	TERRIX RD-MN, TERRIX RD-MN-w	≥ 0.08 Mpa or failure into mineral wool
	TERRIX RD-MN-S	
	TERRIX RD-MN deco	
	TERRIX RD-MN/TERRIX RD-PS md-deco	
	TERRIX RD-MN md + TERRIX PR-AC-P + TERRIX EP-LT + TERRIX EP-AC-T	
	TERRIX RD-SN, TERRIX RD-SN-w	
	TERRIX RD-SN-S	
	TERRIX RD-SN deco	
	TERRIX RD-SN-B	
	TERRIX RD-SS	
	TERRIX RD-PS, TERRIX RD-PS-w	
	TERRIX RD-PS-S	
	TERRIX RD-PS deco	

3.4.5. Fixing strength

Test not required. ETICS fulfils the criteria $E \cdot d \geq 50,000 \text{ N} \cdot \text{mm}^{-1}$

3.4.6. Wind load resistance

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

$$R_d = \frac{R_{\text{panel}} \times n_{\text{panel}} + R_{\text{joint}} \times n_{\text{joint}}}{\gamma_m}$$

where:

n_{panel} : number (per m²) of anchors not placed at the panel joints
 n_{joint} : number (per m²) of anchors placed at the panel joints
 γ_m : national safety factor

Table 9:

Anchors for which the following failure loads apply		Anchors according to Annex 2	
		Plate diameter (mm)	≥ 60
Characteristics of the MW boards / MW double density boards for which the following failure loads apply		Thickness (mm)	≥ 50
		Tensile strength perpendicular to the faces (kPa)	≥ 7.5
Failure loads (N)	Anchors not placed at the panel joints (<i>Pull-through test</i>) dry conditions	R_{panel}	Minimum: 197 Average: 243
	Anchors not placed at the panel joints (<i>Pull-through test</i>) wet conditions	R_{panel}	Minimum: 183 Average: 221
	Anchors placed at the panel joints (<i>Pull-through test</i>) dry conditions	R_{joint}	Minimum: 132 Average: 157
	Anchors placed at the panel joints (<i>Pull-through test</i>) wet conditions	R_{joint}	Minimum: 121 Average: 139

3.4.7. Render strip tensile test

No performance assessed

3.5. Protection against noise (BWR 5)

Not relevant.

3.6. Energy economy and heat retention (BWR 6)

Thermal resistance

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

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

where:

$X_p \cdot n$ has only to be considered if it is greater than $0,04 \text{ W} \cdot (\text{m}^2 \cdot \text{K})^{-1}$

U_c : global (corrected) thermal transmittance of the covered wall $\text{W} \cdot (\text{m}^2 \cdot \text{K})^{-1}$

n : number of anchors (through insulation product) per 1 m^2

X_p : local influence of thermal bridge caused by an anchor. The values listed below can be considered if not specified in the anchor's UKTA:

= $0,002 \text{ W} \cdot \text{K}^{-1}$ for anchors with a stainless-steel screw covered by plastic anchors and for anchors with an air gap at the head of the screw
($X_p \cdot n$ negligible for $n < 20$)

= $0,004 \text{ W} \cdot \text{K}^{-1}$ for anchors with a galvanized steel screw with the head covered by a plastic material ($X_p \cdot n$ 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) $(\text{W} \cdot (\text{m}^2 \cdot \text{K})^{-1})$ determined as follows:

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

where:

R_i : thermal resistance of the insulation product (according to declaration in reference to EN 13162) in $(\text{m}^2 \cdot \text{K}) \cdot \text{W}^{-1}$

R_{render} : thermal resistance of the render (about $0,02$ in $(\text{m}^2 \cdot \text{K}) \cdot \text{W}^{-1}$ or determined by test according to EN 12667 or EN 12664)

$R_{\text{substrate}}$: thermal resistance of the substrate of the building (concrete, brick) in $(\text{m}^2 \cdot \text{K}) \cdot \text{W}^{-1}$

R_{se} : external superficial thermal resistance in $(\text{m}^2 \cdot \text{K}) \cdot \text{W}^{-1}$

R_{si} : internal superficial thermal resistance in $(\text{m}^2 \cdot \text{K}) \cdot \text{W}^{-1}$

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

4.1. System of assessment and verification of constancy of performance

According to UKAD No. 040083-00-0404 and Annex V of the Construction Products Regulation (Regulation (EU) 305/2011) as brought into UK law and amended, the system of assessment and verification of constancy of performance (AVCP) 1 and 2+ applies.

Table 10:

Product(s)	Intended use(s)	Level(s) or class(es) (Reaction to fire)	System(s)
External thermal insulation composite	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+
Systems/Kits (ETICS) with rendering	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).

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable UKAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with the British Board of Agrément and made available to the UK Approved Bodies involved in the conformity attestation process.

5.1. UKCA marking for the product/ system must contain the following information:

- Identification number of the Approved Body
- Name/address of the manufacturer of the product/ system
- Marking with intention of clarification of intended use
- Date of marking
- Number of certificate of constancy of performance (where applicable)
- UKTA number.

On behalf of the British Board of Agrément



Date of Issue: 23 March 2023

Hardy Giesler
Chief Executive Officer



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ANNEX 1 - Insulation products characteristics

This annex applies to the product described in the main body of the UK Technical Assessment.

		Factory made mineral wool (MW) products according to EN 13162		
		MW board	MW double density board	MW lamella
Reaction to fire / EN 13501-1		Class - A1 max. density: 90 kg·m ⁻³		
Thermal resistance		Defined in the UKCA marking in reference to EN 13163 (m ² ·K)·W ⁻¹		
Thickness / EN 823		- 1 % or-1 mm +3mm [EN 13162 - T5]	- 1 % lub -1 mm +3mm [EN 13162 - T5]	- 1 % or-1 mm +3mm [EN 13162 - T5]
Dimensional stability under specified conditions	EN 1604	1% [EN 13162- DS(70,-)]	1% [EN 13162 - DS(70,-)]	1% [EN 13162 - DS(70,-)]
	EN 1604	-	1% [EN 13162 – DS (70,90)]	1% [EN 13162 - DS(70,90)]
Short-term water absorption (Partial immersion) / EN 1609		EN 13162 - WS		
Long-term water absorption (Partial immersion) / EN 12087		EN 13162 - WL(P)		
Water vapor diffusion resistance factor(μ) / EN 12086		EN 13162 - 1		
Tensile strength perpendicular to the faces in dry conditions / EN 1607		7.5 kPa [EN 13162 - TR7.5]	10 kPa [EN 13162 - TR10]	80 kPa [EN 13162 - TR80]
Shear strength / EN 12090		-	-	0.02 MPa
Shear modulus / EN 12090		-	-	1.0 MPa

ANNEX 2 - Anchors characteristics

This annex applies to the product described in the main body of the UK Technical Assessment.

Anchor trade name	Plate stiffness (kN.mm ⁻¹) / diameter (mm)	Characteristic resistance in the substrate
Koelner KI-10N	0.5 / 60	ETA-07/0221
TFIX-8M	1.0 / 60	ETA-07/0336
Koelner TFIX-8S, Koelner TFIX-8ST	0.6 / 60	ETA-11/0144
EJOT ejothem STR U 2G	0.6 / 60	ETA-04/0023
EJOT SDF-S plus	0.7 / 60	ETA-04/0064
EJOT H1 eco, EJOT H4 eco	0.6 / 60	ETA-11/0192
WK THERM08	0.6 / 60	ETA-11/0232
WK THERM S	0.6 / 60	ETA-13/0724
tMX08	0.5 / 60	ETA-09/0001
Klimas Wkret-met screw in plug eco-drive	0.6 / 60	ETA-13/0107

Additionally, other anchors covered by a relevant ETA or UKTA can be used, provided that they meet the following requirements:

	Requirement
Plate diameter	≥60mm
Plate stiffness	≥0.5 kN·mm ⁻¹

ANNEX 3 - Glass fibre meshes characteristics

This annex applies to the product described in the main body of the UK Technical Assessment.

Mesh trade name		Description	Alkalis resistance	
			Residual resistance after ageing (N·mm ⁻¹)	Relative residual resistance: % (after ageing) of the strength in the as delivered state
TERRIX® AC-MS 145	AKE 145	Mass per unit area: 145 g·m ⁻² Mesh size: 4.0 x4.5 mm	≥ 20	≥ 50
	R117A101*	Mass per unit area: 152 g·m ⁻² Mesh size: 4.0 x4.5 mm	≥ 20	≥ 50
TERRIX® AC-MS AG 145	03-43**	Mass per unit area: 145 g·m ⁻² Mesh size: 4.6 x 3.6 mm	≥ 20	≥ 50
TERRIX® AC-MS V 145	GG-145	Mass per unit area: 145 g·m ⁻² Mesh size: 4.1 x 5.1 mm	≥ 20	≥ 50
TERRIX® AC-MS 150	OPTIMA-NET 150	Mass per unit area: 150 g·m ⁻² Mesh size: 4.0 x4.5 mm	≥ 20	≥ 50
TERRIX® AC-MS 160	AKE 170	Mass per unit area: 168 g·m ⁻² Mesh size: 3.5 x 3.8 mm	≥ 20	≥ 50
	R 131 A101*	Mass per unit area: 167 g·m ⁻² Mesh size: 3.3 x 3.7 mm	≥ 20	≥ 50
TERRIX® AC-MS AG 160	03-1**	Mass per unit area: 156 g·m ⁻² Mesh size: 4.0 x 3.7 mm	≥ 20	≥ 50

* mesh covered by ETA 13/0392;

**mesh covered by ETA 18/0857

ANNEX 3 - Glass fibre meshes characteristics - continued

Mesh trade name		Description	Alkalis resistance	
			Residual resistance after ageing (N·mm ⁻¹)	Relative residual resistance: % (after ageing) of the strength in the as delivered state
TERRIX® AC-MS 165	OPTIMA-NET 165	Mass per unit area: 165 g·m ⁻² Mesh size: 3.6 x4.0 mm	≥ 20	≥ 50
TERRIX® AC-MS 175	ST 112-100/7KM	Mass per unit area: 170 g·m ⁻² Mesh size: 4.0 x3.7 mm	≥ 20	≥ 50
TERRIX® AC-MH 335	REDNET E335***	Mass per unit area: 335 g·m ⁻² Mesh size: 6.0 x 9.0 mm	≥ 20	≥ 50

***reinforced mesh used with AKE 145 or R 117 A101 standard mesh



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