

1. Unique identification code of the product-type	UK-WER-0213-01_english
2. Intended use of the construction product as foreseen by the manufacturer, in accordance with the applicable harmonised technical specification	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)
3. Name, registered trade name or registered trade mark and contact address of the manufacturer, as required pursuant to Article 11(5) of regulation (EU) No 305/2011	Rockwool Ltd
4. Applicable System or Systems of Assessment and Verification of Constancy of Performance (AVCP)	System 1
5. European Assessment Document (EAD) Number and date of issue	ETAG 004, edition 2013
6. European Technical Approval (ETA) Number and date of issue	14/0232, 8/7/16
7. Technical Assessment Body (TAB) Name	TZUS Technical and Test Institute for Construction Prague
8. Notified Body Identification Number	1020
9. Declared Performances	Please refer to the table below (NPD – No Performance Determined)

Essential Characteristics ETA 14/0232 and ETAG 004/2011	The reference to provisions of ETA 14/0232 and ETAG 004:2011	ETA – 14/0232	Declared value / NPD ¹⁾	
Fire safety ²⁾	3.1.1 Reaction to fire EN 13501-1	Euroclass acc. to EN13501-1	A2-s1,d0	
Hygiene, health and environment	3.2.2.1 Water absorption after 24 hours	Base Coat Plus and Silicone Topcoat, Base Coat Plus and Brick Effect Base Coat and Top Coat Base Coat Plus and Dash Receiver S	< 0,5 kg/m ²	
	3.2.2.3 Hygrothermal Behaviour	(ETAG 004 – clause 5.1.3.2)	Pass (without defects)	
	3.2.2.2 Freeze-thaw behaviour	(ETAG 004 – clause 5.1.3.2)	Freeze Thaw Resistant - according to water absorption test result	
	3.2.3 Impact resistance	Impact resistance (ETAG 004 – clause 5.1.3.3)	• REDArt Base Coat Plus and REDArt Silicone Topcoat Single Mesh	Category II
			• REDArt Base Coat Plus and Silicone Topcoat Double Mesh	Category I
			• REDArt Base Coat Plus Brick effect based coat and topcoat Single or Double mesh	Category II
• REDArt Base Coat Plus and REDArt Dash Receiver S Single or Double Mesh			Category II	
3.2.4 Water vapour permeability	Base Coat Plus + REDArt Silicone Topcoat Base Coat Plus + REDArt Brick Effect Base Coat and Top Coat Base Coat Plus + REDArt Dash Receiver S	Equivalent air layer thickness Sd ≤ 0.48 m		
		Equivalent air layer thickness Sd ≤ 0.31 m Equivalent air layer thickness Sd ≤ 0.35 m		
3.2.5 Release of dangerous substances	ETAG 004 – clause 5.1.3.5, EOTA TR034	No performance assessed		

Safety in use	3.3 Safety and accessibility in use	Bond strength between base coat and insulation product (ETAG 004 – clause 5.1.4.1.1), With REDArt Base Coat Plus used as base coat matter: Initial State After hygrothermal cycles After freeze-thaw cycles	≥0,026 MPa* ≥0,008MPa* Test not required
		Bond strength between adhesive and substrate / insulation product (ETAG 004 – clauses 5.1.4.1.2, 5.1.4.1.3) REDArt Adhesive Concrete Initial State 48 hours immersion in water +2 hours. 23 C/50%RH 48 hours immersion in water 7 Days. 23 C/50%RH MW Board Initial State	<0,25MPa <0,08MPa <0,25MPa <0,08MPa*

		48 hours immersion in water +2 hours. 23 C/50%RH 48 hours immersion in water 7 Days. 23 C/50%RH REDArt Base Coat Plus MW Board Initial State 48 hours immersion in water +2 hours. 23 C/50%RH 48 hours immersion in water 7 Days. 23 C/50%RH Bond Strength After Ageing (ETAG 004 – clause 5.1.7.1) REDArt Base Coat Plus used as base coat matter After Ageing After freeze thaw cycles	<0,03MPa* <0,08MPa* <0,08MPa* <0,03MPa* <0,08MPa* ≥0.005MPa* Test not required
	3.3.4 Fixing strength	ETAG 004 – clause 5.1.4.2	Test not required (no limitation of ETICS length)
	2.2.8.3 Wind load resistance	See Table 8 ETA 14/0232	See Table 8
Energy saving and heat retention	4.2.1 Thermal resistance calculation according to EN ISO 6946	The thermal resistance of the wall on which the ETICS shall be calculated in accordance with EN ISO 6946 and the guidelines contained in section 3.5.1 ETA 14/0232	Value calculation
Sustainable use of natural resources	3.6 Sustainable use of natural resources	BWR7	No performance assessed

*failure in thermal insulation material

KEY COMPONENTS

	Components	Coverage (kg/m ²)	Thickness (mm)
	Mechanically fixed ETICS with anchors and supplementary adhesive (see Cl. 3.3.5 and Annex No. 2 for possible associations MW/anchors)		
	<ul style="list-style-type: none"> Insulation product according to EN 13162 see annex no. 1 for product characteristics 	/	60 to 250
	Supplementary adhesives: - REDArt Adhesive (cement based powder requiring addition of water 0.22 l/kg) - REDArt Base Coat Plus (cement based powder requiring addition of water 0.22 l/kg)	4.0 to 6.0 (dry matter) 5.0 to 7.0 (dry matter)	/

Insulation Materials associated with methods of fixing	<ul style="list-style-type: none"> • Anchors, see Annex No. 2 for individual product characteristics. In addition to the following list, other anchors can be used provided that they comply with the requirements introduced in the Annex 2 <ul style="list-style-type: none"> - ejothem NT U plastic nailed-in anchors - ejothem STR U, STR U 2G plastic screwed-in anchors - KOELNER TFIX-8M plastic nailed-in anchors - KOELNER TFIX-8S plastic screwed-in anchors - Thermoschraubdübel KEW TSBD 8 plastic screwed-in anchors - Thermoschlagdübel KEW TSD-V plastic nailed-in anchors - Thermoschlagdübel KEW TSDL-V plastic nailed-in anchors - Thermoschlagdübel KEW TSD-V KN plastic nailed-in anchors 	ETA-05/0009 ETA-04/0023 ETA-07/0336 ETA-11/0144 ETA-08/0314 ETA-08/0315 ETA-12/0148 ETA-13/0075	
Base coat	<ul style="list-style-type: none"> • REDArt Base Coat Plus (cement based powder requiring addition of water 0.22 l/kg) 	Approximately 5.0 to 7.0 (dry matter)	3.0 to 5.0
Reinforcement	<ul style="list-style-type: none"> • Standard mesh applied in one or two layers see Annex no. 3 for product characteristics: Rockwool Reinforcing Mesh 	one layer 1,1 - 1,2 m ² /m ² two layers 2,2 - 2,4 m ² /m ²	
Key coat	REDArt Silicone Primer Ready to use pigmented liquid	0.3 – 0.4	/
Finishing coats	<ul style="list-style-type: none"> • Ready to use paste - silicone binder: - REDArt Silicone Top Coat floated structure (particle size 1.0; 1.5; 2.0 mm) 	1.7 to 3.2	Regulated by particle size

	<ul style="list-style-type: none"> • Powder - mineral binder: (Cement based powder requiring addition of 0.16 to 0.20 l/kg of water) <ul style="list-style-type: none"> - REDArt Brick Effect Base Coat base coat matter intended to be used before applying REDArt Brick Effect Top Coat - REDArt Brick Effect Top Coat finishing coat applied over REDArt Brick Effect Base Coat. Through-cutting required into the base coat layer to create brick effect - REDArt Dash Receiver S traditional self coloured render applied in one coat and with dry dash as the surface layer 	<p>10.0 to 11.0 (dry)</p> <p>5.0 to 6.0 (dry)</p> <p>6.0 to 8.0 (dry)</p>	<p>6.0 – 8.0</p> <p>3.0 – 5.0</p> <p>6.0 – 8.0</p>
Aggregate for REDArt Dash renderings	<p>Aggregate spar stone aggregate to be used as the surface layer on REDArt Dash Receiver S (applied by throwing onto the surface)</p>	<p>0.12 (l/m²) per layer</p>	
Ancillary materials	<p>Remain under the manufacturer's responsibility</p>		

Annex no. 1 Insulation product characteristics

Description and characteristics	Regulation	Declared characteristics External Wall Dual Density Slab (longitudinal fibre orientation)	
		Class, level according to EN 13162	Value
Reaction to fire	EN 13501 -1+A1:2009	A1	maximal density $\leq 130 \text{ kg/m}^3$
Thermal resistance	EN 12667 EN 12939	Defined in CE mark in accordance with EN 13162:2012	
Thickness	EN 823	T5	-1 % or -1 mm*, +3 mm
Length	EN 822	---	$\pm 2 \%$
Width		---	$\pm 1.5 \%$
Squareness	EN 824	---	$\leq 5 \text{ mm/m}$
Flatness	EN 825	---	$\leq 6 \text{ mm}$
Surface	ETAG 004	No additional treatment (homogenous, without coating)	
Dimensional stability under defined temperature and humidity	EN 1604	DS(70,90)	1 %
Water absorption	Short term water absorption	EN 1609	---
	Long term water absorption	EN 12087	WL(P) $\leq 3.0 \text{ kg/m}^2$
Diffusion factor (μ)(-)	EN 12086 - EN 13162:2012	MU1	1
Tensile strength perpendicular to the faces of insulation product in dry conditions	EN 1607	TR10	$\geq 10 \text{ kPa}$
Tensile strength perpendicular to the faces of insulation product in wet conditions	ETAG 004	---	$\geq 4 \text{ kPa}$
Shear strength	EN 12090	---	---
Shear modulus of elasticity	EN 12090	---	---

* higher value applies

Note: Classes and levels for individual characteristics comply with EN 13162:2012

Annex no. 2 Anchors, description of individual product characteristics contained in the ETA

Trade name	Plate diameter (mm)	Characteristic pull-out resistance	Plate stiffness (kN/mm)	Load at plate rupture (kN)
Surface assembly				
Ejothem NT U	60	see ETA - 05/0009	0.60	2.43
Ejothem STR U, STR U 2G alternatively with additional plate: EJOT VT 90	60	see ETA - 04/0023	0.60	2.08
KOELNER TFIX-8M	60	see ETA - 07/0336	1.00	1.75
KOELNER TFIX-8S	60	see ETA - 11/0144	0.60	2.04
Thermoschraubdübel KEW TSBD 8	60	see ETA-08/0314	1.60	2.22
Thermoschlagdübel KEW TSD-V	60	see ETA-08/0315	1.2	1.75
Thermoschlagdübel KEW TSDL-V	60	see ETA-12/0148	1.2	1.75
Thermoschlagdübel KEW TSD-V KN	60	see ETA-13/0075	1.2	1.75
Countersunk assembly				
Ejothem STR U, STR U 2G alternatively with additional plate: EJOT VT 2G	60	see ETA - 04/0023	0.60	2.08
Thermoschraubdübel KEW TSBD 8	60	see ETA-08/0314	1.60	2.22

In addition to this list, anchors assessed in accordance with ETAG 014 can be used provided that such anchors meet the following requirements:

	Requirements	
Plate diameter	≥ 60 mm	
Plate stiffness	Surface assembly:	≥ 0.6 kN/mm
	Countersunk assembly:	≥ 0.6 kN/mm
Rupture force of anchor's plate	≥ Higher of figures R_{panel} and R_{joint} in relevant table in Cl. 3.3.4	


Annex No. 3 Description of glass fibre mesh

	Description	Strength after ageing	
		Absolute strength after ageing (N/mm)	Relative residual strength after ageing, of the strength in the as-delivered state (%)
ROCKWOOL Universal Reinforcing Mesh	standard fibre mesh applied in single layer with mesh size 3.5 x 4.0 mm	≥ 20	≥ 50

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Bob PERRY
Production Director



At Bridgend on 17th October 2016