

## DECLARATION OF PERFORMANCE

No. **0764-CPD-0182\_JHg12-027 vs01 - DK**

*1. Unique identification code of the product-type:*

ROCKPANEL Durable 8 mm finish Colours/Rockclad and ROCKPANEL Durable 8 mm finish ProtectPlus

*2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):*

EC-Certificate of Conformity 0764 - CPD – 0182

*3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:*

Internal and external wall and ceiling finishes

*4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):*

ROCKWOOL B.V. / ROCKPANEL Group  
Konstruktieweg 2  
NL-6045 JD Roermond  
Tel. +31 475 353 000  
Fax +31 475 353 550

*5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):*

Not relevant

*6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:*

System 1

*7. In case of the declaration of performance concerning a construction product covered by a harmonised standard:*

Not relevant

*8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:*

ETA-Danmark A/S  
Kollegievej 6, DK-2920 Charlottenlund  
Tel. +45 72 24 59 00  
Fax +45 72 24 59 04  
Internet [www.etadanmark.dk](http://www.etadanmark.dk) E-mail: [eta@etadanmark.dk](mailto:eta@etadanmark.dk)

<i>issued</i>	ETA-07/0141 valid from 2011-11-08 to 2016-11-08
<i>on the basis of</i>	CUAP 04.04/12 update 2008-06-25
<i>Notified Body</i>	Materialprüfanstalt für das Bauwesen Nienburger Strasse 3, D-30167 Hannover Notified Body 0764 Tel. +49 511 762 3104 Fax +49 511 762 4001 Internet <a href="http://www.mpa-bau.de/">www.mpa-bau.de/</a>
<i>performed</i>	(i) type testing, (ii) initial inspection of the manufacturing plant and of factory production control, (iii) continuous surveillance assessment and evaluation of factory production control
<i>under system</i>	1
<i>and issued</i>	<b>EC-Certificate of Conformity 0764 - CPD – 0182</b>

## Characteristics of the product

The ROCKPANEL Durable Colours panels are surface treated with a four-layer water-borne polymer emulsion paint on one side, in a range of colours.

The ROCKPANEL Durable ProtectPlus panels are surface treated with a four-layer water-borne polymer emulsion paint on one side, which has been provided with an extra anti-graffiti clear coat as a fifth layer on the colour paint.

The physical properties of **ROCKPANEL DURABLE** 8 mm are indicated below:

- thickness 8 ± 0.5 mm
- length, max 3050 mm
- width, max 1250 mm
- density nominal 1050 ± 150 kg/m<sup>3</sup>
- bending strength length and width  $f_{05} \geq 27$  N/mm<sup>2</sup>
- Modulus of Elasticity 4015 N/mm<sup>2</sup>
- Thermal conductivity 0.35 W/(m.K)

Clause 9 contains the performances of ROCKPANEL DURABLE 8 mm.

## 9. Declared performance

Essential characteristics	Performance				Harmonised technical specification
ER2 - Safety in case of fire	Table 1 - Euroclass classification of different constructions with ROCKPANEL boards				ETA-07/0141 issued 2011-11-08 EN 13501-1:2007
	Fixing method	Ventilated or non-ventilated	vertical wooden subframe	vertical aluminium subframe	
			'Durable Colours' and 'Durable ProtectPlus'		
	mechanically fixed	Non-ventilated. Cavity filled with mineral wool	B-s1,d0 closed horizontal joint		
		Ventilated with EPDM gasket on the battens [a]	B-s2,d0 open 6 mm horizontal joint		
		Ventilated with 6 or 8 mm RockPanel strips on the battens [b]	B-s2,d0 open 6 mm horizontal joint		
	bonded	ventilated with 8 mm RockPanel strips on the battens [b]	B-s2,d0 open 6 mm horizontal joint		
		ventilated		B-s2,d0 open 6 mm horizontal joint	
	[a] width of the gasket 15 mm at both sides wider than the batten [b] width of the strip 15 mm at both sides wider than the batten				

### Field of application

The following field of application applies.

### Euroclass classification

The classification mentioned in table 1 is valid for the following end use conditions:

- Mounting
- Mechanically fixed or adhered as described in table 1, which are attached to the subframe mentioned below
  - Adhered to a wooden subframe with intermediate Rockpanel strips mechanically fixed
  - The panels are backed with min. 50 mm mineral wool insulation with density 51-69 kg/m<sup>3</sup> with an air gap between the panels and the insulation (mechanically fixed)
  - The panels are backed with min. 40 mm mineral wool insulation with density 51-69 kg/m<sup>3</sup> without an air gap between the wooden subframe (mechanically fixed – non ventilated)
  - The panels are backed with min. 50 mm mineral wool insulation with density 51-69 kg/m<sup>3</sup> with an air gap between the panels and the insulation (fixing method Adhesive ROCKPANEL Tack-S)

Substrates: • Concrete walls, masonry walls, timber framing

- Insulation:
- Ventilated constructions: The battens are backed with min. 50 mm mineral wool insulation with density 51-69 kg/m<sup>3</sup> with an air gap of min. 28 mm between the panels and the insulation
  - Non-ventilated constructions: The panels are backed with min. 40 mm mineral wool insulation with 51-69 kg/m<sup>3</sup> between the battens and min. 50 mm with density 51-69 kg/m<sup>3</sup> behind the battens without air gap
  - Ventilated construction and fixing method adhesive Rockpanel Tack-S: The panels are backed with min. 50 mm mineral wool insulation with density 51-69 kg/m<sup>3</sup> with an air gap of min. 36 mm between the panels and the insulation
  - Results are also valid for all greater thickness of mineral wool insulation layer with the same density and the same or better reaction to fire classification
- Subframe:
- Vertical softwood battens without fire retardant treatment, thickness minimum 28 mm
  - Test results are also valid for the same type of panel with aluminium or steel frame
- Fixings:
- Results are also valid with higher density of the fixing devices
  - Test results are also valid for the same type of panel fixed by rivets made of the same material of screws and vice versa
- Cavity:
- Unfilled or filled with insulation of stone wool with a nominal density  $\geq 51 - 69 \text{ kg/m}^3$
  - The depth of the cavity is minimum 28 mm
  - Test results are also valid for other higher thickness of air space between the back of the board and the insulation
- Joints:
- Vertical joints are with an EPDM foam gasket backing or Rockpanel strip backing as described in table 1 and horizontal joints can be open (ventilated constructions) or with an aluminium profile (ventilated and non-ventilated constructions)
  - The result from a test with an open horizontal joint is also valid for the same type of panel used in applications with horizontal joints closed by steel or aluminium profiles

The classification is also valid for the following product parameters:

Thickness: • Nominal 8 mm, individual tolerances  $\pm 0.5 \text{ mm}$

Density: • Nominal 1050 kg/m<sup>3</sup>, individual tolerances  $\pm 150 \text{ kg/m}^3$

Essential characteristics	<b>Table 2 - Performance - Water vapour permeability and water permeability</b>		Harmonised technical specification
	Property	Declared values	
ER3 – Hygiene, health and environment	Water vapour permeability	Durable Colours: $s_d < 1.80$ m at 23°C and 85 %RH Durable ProtectPlus: $s_d < 3.5$ m at 23°C and 85 %RH The designer shall consider the relevant needs for ventilation, heating and insulation to minimise condensation in service.	ETA-07/0141 issued 2011-11-08 EN ISO 12572 test condition B
	Water permeability	Incl. joints for non-ventilated applications: 50 Pa	ETA-07/0141 issued 2011-11-08

Essential characteristics	<b>Table 3 - Performance - Release of dangerous substances</b>		Harmonised technical specification
	Property	Product specification	
ER3 – Hygiene, health and environment	Influence on air quality and Release of dangerous substances to soil and water	No dangerous materials *) The used fibres are not potential carcinogenic No biocides are used in the ROCKPANEL boards No flame retardant is used in the boards No cadmium is used in the boards. Formaldehyde concentration 0,0105 mg/m <sup>3</sup> Formaldehyde class E1	ETA-07/0141 issued 2011-11-08

\*) In accordance with [http://ec.europa.eu/enterprise/sectors/construction/cp-ds/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/construction/cp-ds/index_en.htm) In addition to the specific clauses relating to dangerous substances contained in ETA-07/0141, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

Essential characteristic	Table 4a - Performance - Design value of the axial load for mechanical fixing 8 mm 'Durable' boards					Harmonised technical specification		
	For service class 2 (see 'Note') and load-duration class 'Instantaneous' [c] For hole diameters fixings see table 6							
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	ETA-07/0141 issued 2011-11-08 EN 14592:2008+A1:2012 (E)	
		a fixing	b board					
ER4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	600	600	C18/C24[d ]: 533 / 241 / 118	6-2 [c]		
		screw fixing [a][e] with the use of 8 mm ROCKPANEL strips	600	600	C18 [d]: 284 / 241 / 118 C24 [d]: 306 / 241 / 118	6-3 [c]		
		nail fixing (32 mm) [e] with the use of gaskets	400	600	C18 [d]: 142 / 142 / 142 C24 [d]: 170 / 170 / 170	6-4 [c]		
		Rivet fixing [e]	600	600	654 / 309 / 156	6-1 [c]		
[a] with $\alpha \geq 30^\circ$ : $\alpha$ is the angle between the screw axis and the grain direction					[d] Strength class EN 338			
[b] see Table 7					[e] for specifications fixings see table 9			
[c] $k_{mod} = 1,10$ in accordance with Table 3.1 – ‘Values of $k_{mod}$ ‘ DS/EN 1995-1-1 DK NA:2010; For ‘service class’ 2 [“ventilated structures protected against precipitation”] and ‘load-duration class’ ‘Instantaneous’ [Table 2.2 DS/ EN 1995-1-1 DK NA:2010-05]					Note (according to DS/ EN 1995-1-1 NA:2010-05 §2.3.1.3 (3)P ): Service class 2 - “ventilated structures protected against precipitation, e.g. ventilated roof structures” . EN 1995-1-1: In service class 2 the average moisture content in most softwoods will not exceed 20 %.			

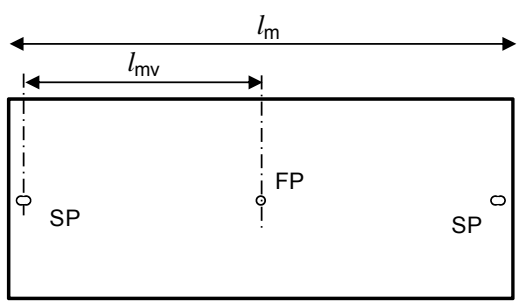
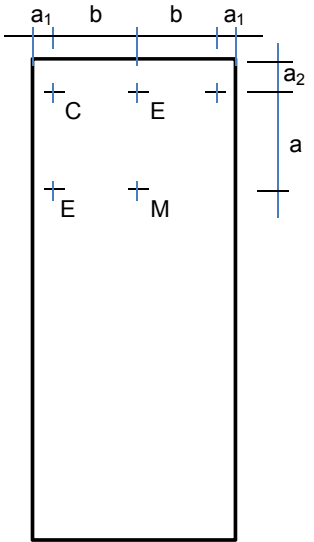
Essential characteristic	Table 4b - Performance - Design value of the axial load for mechanical fixing 8 mm 'Durable' boards					Harmonised technical specification	
	For service class 3 (see 'Note') and load-duration class 'Instantaneous' [c] For hole diameters fixings see table 6						
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	ETA-07/0141 issued 2011-11-08 EN 14592:2008+A1:2012 (E)
		a fixing	b board				
ER4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	600	600	C18/C24[d ]: 533 / 241 / 118	6-2 [c]	
		screw fixing [a][e] with the use of 8 mm ROCKPANEL strips	600	600	C18 [d]: 233 / 233 / 118 C24 [d]: 250 / 241 / 118	6-3 [c]	
		nail fixing (32 mm) [e] with the use of gaskets	400	600	C18 [d]: 116 / 116 / 116 C24 [d]: 139 / 139 / 139	6-4 [c]	
		Rivet fixing [e]	600	600	654 / 309 / 156	6-1 [c]	
[a] with $\alpha \geq 30^\circ$ : $\alpha$ is the angle between the screw axis and the grain direction					[d] Strength class EN 338		
[b] see Table 7					[e] for specifications fixings see table 9		
[c] $k_{mod} = 0,90$ in accordance with Table 3.1 – 'Values of $k_{mod}$ ' DS/EN 1995-1-1 DK NA:2010; For 'service class' 3 [ "External uses fully exposed"] and 'load-duration class' 'Instantaneous' [Table 2.2 DS/ EN 1995-1-1 DK NA:2010-05]					Note (according to DS/ EN 1995-1-1 NA:2010-05 §2.3.1.3 (3)P): Service class 3 is characterised by climatic conditions leading to higher moisture contents than in service class 2 (compare 'Note' in Table 4a).		

Essential characteristic	Table 4c - Performance - Design value of the axial load for mechanical fixing 8 mm 'Durable' boards					Harmonised technical specification	
	For service class 2 (see 'Note') and load-duration class 'Permanent' [c] For hole diameters fixings see table 6						
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	ETA-07/0141 issued 2011-11-08 EN 14592:2008+A1:2012 (E)
		a fixing	b board				
ER4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	600	600	C18[d ]: 396 / 241 / 118 C24[d ]: 425 / 241 / 118	6-2 [c]	
		screw fixing [a][e] with the use of 8 mm ROCKPANEL strips	600	600	C18 [d]: 155 / 155 / 118 C24 [d]: 167 / 167 / 118	6-3 [c]	
		nail fixing (32 mm) [e] with the use of gaskets	400	600	C18 [d]: 77 / 77 / 77 C24 [d]: 93 / 93 / 93	6-4 [c]	
		Rivet fixing [e]	600	600	654 / 309 / 156	6-1 [c]	
[a] with $\alpha \geq 30^\circ$ : $\alpha$ is the angle between the screw axis and the grain direction			[d] Strength class EN 338				
[b] see Table 7			[e] for specifications fixings see table 9				
[c] $k_{mod} = 0,60$ in accordance with Table 3.1 – ‘Values of $k_{mod}$ ‘ DS/EN 1995-1-1 DK NA:2010; For ‘service class’ 2 [“ventilated structures protected against precipitation”] and ‘load-duration class’ ‘Permanent’ [Table 2.2 DS/ EN 1995-1-1 DK NA:2010-05]			Note (according to DS/ EN 1995-1-1 NA:2010-05 §2.3.1.3 (3)P ): Service class 2 - “ventilated structures protected against precipitation, e.g. ventilated roof structures” . EN 1995-1-1: In service class 2 the average moisture content in most softwoods will not exceed 20 %.				

Essential characteristic	Table 5 - Performance - Design value of the axial load for mechanical fixing 8 mm ‘Durable’ strips for bonding purposes For service class 2 (see ‘Note’) and load-duration class ‘Instantaneous’ [c] For hole diameters fixings see table 6							Harmonised technical specification		
	Property	8 mm strips [b] in combination with	Span in mm			$X_d = X_k / \gamma_M$ [c] in N		Table in ETA	ETA-07/0141 issued 2011-11-08 and EN 14592:2008 +A1:2012 (E)	
			a <sub>2</sub>	a fixing	b adhesive ridge	SE: start / end of the strip	SM: Middle of the strip			
ER4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$ [c]	screw fixing and intermediate strips [a][e]	≥ 50	400	600	C18 [d] : 266 C24 [d] : 266	C18 [d] : 425 C24 [d] : 425	6-6 [c]		
		screw fixing and end strips or joint strips [a][e]	≥ 50	400	600	C18 [d] : 124 C24 [d] : 124	C18 [d] : 412 C24 [d] : 412	6-5 [c]		
		nail fixing (32 mm) and intermediate strips [e]	≥ 50	300	600	C18 [d] : 133 C24 [d] : 133	C18 [d] : 151 C24 [d] : 180	6-8 [c]		
		nail fixing (32 mm) and end strips [b][e]	≥ 50	300	600	C18 [d] : 76 C24 [d] : 76	C18 [d] : 151 C24 [d] : 180	6-7 [c]		
		Strips for a wooden subframe :			located on vertical joints		located on end or between joints			
<p>[a] with <math>\alpha \geq 30^\circ</math> : <math>\alpha</math> is the angle between the screw axis and the grain direction</p> <p>[b] fixed points in the middle of the length of the strip</p> <p>[c] <math>k_{mod} = 1,10</math> Table 3.1 DS/EN 1995-1-1 DK NA:2010-05 For service class 2 [DS/ EN 1995-1-1 NA:2010-05] “ventilated structures protected against precipitation, e.g. ventilated roof structures” Load-duration class ‘Instantaneous’ [Table 2.2 DS/ EN 1995-1-1 NA:2010-05]</p> <p>[d] Strength class EN 338</p> <p>[e] for specifications fixings see table 9</p>										
<p><b>Note</b> (according to EN 1995-1-1 NA:2010-05 §2.3.1.3 (3)P):</p> <p><b>Service class 2</b> is characterised by a moisture content in the materials corresponding to a temperature of 20°C and the relative humidity of the surrounding air only exceeding 85 % for a few weeks per year. In service class 2 the average moisture content in most softwoods will not exceed 20 %.</p>										

Essential characteristic	<b>Table 6 – Performance mechanical fixings : hole diameters for 'Durable' boards and 'Durable' strips in bonded applications</b>					Harmonised technical specification
	Fixing type [a]	Fixed hole	Moving hole	Slotted hole	Board dimension considered	
ER4 – Safety in use	Screw	3,2	6,0	3,4 * 6,0	1200 * 3050	ETA-07/0141 issued 2011-11-08
	Nail	2,5	3,8	2,6 * 3,8	1200 * 2420	
	Rivet	5,2	8,0	5,2 * 8,0	1200 * 3050	

[a] for specifications fixings see table 9

Essential characteristic	Table 7 – Performance fixings according to table 4, 5 and 6 with the required edge distances, maximum distances and fixing method					Harmonised technical specification	
ER4 – Safety in use						ETA-07/0141 issued 2011-11-08	
	$l_{mv}$ : 'moving length' $\leq 1510$ mm $l_m$ : length max 3050 mm  Fixed point FP and slotted points SP in the middle of the vertical part of the board. All other positions: moving points		Fixing positions concerning loads M: fixing at intermediate position E: fixing at edge C: fixing in corner				
	Fixing type		$b_{max}$ in mm	$a_{max}$ in mm	$a_1$ in mm		$a_2$ in mm
		Screw	600	600	$\geq 15$		$\geq 50$
		Nail	600	400	$\geq 15$		$\geq 50$
Rivet [a]		600	600	$\geq 15$	$\geq 50$		
	Adhesive	600	Continuously applied triangular adhesive ridge of 9 mm				
[a] : For correct fixing, a riveting tool with rivet spacer must be used							

Essential characteristic	<b>Table 8 – Performance shear strength mechanical fixings</b>				Harmonised technical specification
ER4 – Safety in use	Characteristic shear strength mechanical fixings Average values	Fixing	Failure load	Deformation	ETA-07/0141 issued 2011-11-08
		Screws	1549 N	9 mm	
		Nails	1325 N	15 mm	
		Rivets	1722 N	1.7 mm	



Essential characteristic	<b>Table 9 Specifications mechanical fixings</b>			Harmonised technical specification
	Rivet AP14-50180-S	Ring-shank nail	Torx screws	
	Material EN AW-5019 (AlMg5) in accordance with EN 755-2	Stainless steel in accordance with EN 10088	Stainless steel in accordance with EN 10088	
ER4 – Safety in use	Nail material number 1.4541 in accordance with EN 10088  Failure tensile strength $Z_b = 3920$ N  $d^1 = 5$ $d^2 = 14$ $d^3 = 2.75$ $l = 18$ $k = 1.5$	Material number 1.4401 or 1.4578  $d_n = 2.6 - 2.8$ $d_1 = 2.8 - 3.0$ $l_n = 31 - 32.5$ $l_g = 24 - 26$ $D = 5.8 - 6.3$ $H = 0.8 - 1.0$	Material number 1.4401 or 1.4578  $d_s = 3.3 - 3.4$ $d_g = 4.3 - 4.6$ $l = 35 - 1.25$ $b = 26.25 - 28.5$ $D = 9.6 - 0.4$	ETA-07/0141 issued 2011-11-08 Table 8

Essential characteristic	<b>Table 10 –Performance Tack-S adhesive and FoamTape - Initial tensile strength</b>				Harmonised technical specification
		Conditions:	Contact surfaces - Rear of the board onto	Characteristic	Design
ER4 – Safety in use	Tack-S adhesive [a] Partial factor for material property $\gamma_M = 4$ (tensile caused by wind load)	-40°C, -20°C, +23°C and +80°C	'ProtectPlus'	$X_k = 6.94$ N/mm <sup>1</sup>	$X_d = 1.735$ N/mm <sup>1</sup>
			'Colours' code 7Y	$X_k = 8.30$ N/mm <sup>1</sup>	$X_d = 2.075$ N/mm <sup>1</sup>
			aluminium	$X_k = 5.92$ N/mm <sup>1</sup>	$X_d = 1.48$ N/mm <sup>1</sup>
	FoamTape	+23°C	'ProtectPlus'	$X_k = X_d = 0.73$ N/mm <sup>1</sup>	
			'Colours' code 7Y	$X_k = X_d = 1.17$ N/mm <sup>1</sup>	
			aluminium	$X_k = X_d = 0.47$ N/mm <sup>1</sup>	

[a] For the partial load factor  $\gamma_F = 1.5$  shall be taken

Essential characteristic	Table 11 – Performance Tack-S adhesive and FoamTape - Initial shear strength						Harmonised technical specification
		Partial factor for material property $\gamma_M$	Conditions:	Contact surfaces - Rear of the board onto	Characteristic	Design	
ER4 – Safety in use	Tack-S adhesive [a]	40 (shear caused by permanent load)	-40°C, -20°C, +23°C and +80°C	'ProtectPlus'	$X_k = 7.00 \text{ N/mm}^1$	$X_d = 0.175 \text{ N/mm}^1$	ETA-07/0141 issued 2011-11-08
				'Colours' code 7Y			
				aluminium	$X_k = 8.58 \text{ N/mm}^1$	$X_d = 0.214 \text{ N/mm}^1$	
	FoamTape	20 (shear caused by temporary load)	+23°C	'ProtectPlus'	$X_k = 1.00 \text{ N/mm}^1$	$X_d = 0.05 \text{ N/mm}^1$	
				'Colours' code 7Y			
				aluminium	$X_k = 0.99 \text{ N/mm}^1$	$X_d = 0.05 \text{ N/mm}^1$	

[a] For the partial load factor  $\gamma_F = 1.5$  shall be taken

Essential characteristic	<b>Table 12 – Performance shear - Deformation declared</b>			Harmonised technical specification
		Contact surfaces - Rear of the board onto	deformation	
ER4 – Safety in use	Tack-S adhesive Conditions: -20°C, +23°C and +80°C	'ProtectPlus' and 'Colours' code 7Y	3.9 to 6.1 mm	ETA-07/0141 issued 2011-11-08
		aluminium	4.5 to 6.0 mm	

Essential characteristic	<b>Table 13 – Performance Impact resistance</b>				Harmonised technical specification
	Impactor		Energy	Category	
ER4 – Safety in use	Hard body	Steel ball 0.5 kg	3 J	III, II and I	ETA-07/0141 issued 2011-11-08
	Soft body	Ball 3 kg	10 J	IV and III	
	Soft body	Bag 50 kg	300 J	II	

Essential characteristic	<b>Table 14 – Performance dimensional stability</b>			Harmonised technical specification
		Length	Width	
ER4 – Safety in use	Cumulative dimensional change [a]	0.088%	0.094%	ETA-07/0141 issued 2011-11-08
	Coefficient of thermal expansion m/m.°K	$10.9 \cdot 10^{-6}$	$11.0 \cdot 10^{-6}$	
	Coefficient of moisture expansion 42% RH difference after 4 days mm/m	0.293	0.310	

[a] As a consequence the minimum joint width shall be 3 mm, preferably 5 mm.

Essential characteristic	<b>Table 15 – Resistance to hygro-thermal cycles and Xenon Arc exposure</b>			Harmonised technical specification
			Performance	
Aspects of durability and serviceability	Resistance to Hygrothermal cycles		Pass	ETA-07/0141 issued 2011-11-08
	Resistance to Xenon Arc exposure 5000 hours artificial weathering	Finish 'Colours/Rockclad'	ISO 105 A02: 3-4 or better	
		Finish 'ProtecPlus'	ISO 105 A02: 4 or better	

Essential characteristic	Table 16 – Characteristic tensile strength Tack-S adhesive				Harmonised technical specification
Aspects of durability and serviceability	Immersion in water without UV	Contact surfaces - Rear of the board onto	Performance		
			21 days	42 days	
		'ProtectPlus'	X <sub>k</sub> = 2.80 N/mm <sup>1</sup>	X <sub>k</sub> = 2.22 N/mm <sup>1</sup>	
		'Colours' code 7Y			
	aluminium	X <sub>k</sub> = 3.12 N/mm <sup>1</sup>	X <sub>k</sub> = 2.58 N/mm <sup>1</sup>	ETA-07/0141 issued 2011-11-08	

[a] For the partial load factor  $\gamma_F = 1.5$  shall be taken

Essential characteristic	<b>Table 17 – Characteristic tensile strength Tack-S adhesive</b>			Harmonised technical specification
		Contact surfaces - Rear of the board onto	Performance	
Aspects of durability and serviceability	Humidity and NaCl	aluminium	$X_k = 6.03 \text{ N/mm}^1$	ETA-07/0141 issued 2011-11-08
	Humidity and SO <sub>2</sub>	aluminium	$X_k = 6.67 \text{ N/mm}^1$	

10. *The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.*

*This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.*

*Signed for and on behalf of the manufacturer by:*

ROCKWOOL B.V.

Maurice Husson - Director RWP-NL

*(name and function)*

Roermond, The Netherlands  
29<sup>th</sup> July 2013

*(place and date of issue)*

A handwritten signature in blue ink, appearing to be 'M. Husson', written in a cursive style.

*(signature)*

*DOP in accordance with EN L 88/38 Official Journal of the European Union 4.4.2011 / ANNEX III*