

DECLARATION OF PERFORMANCE

No. **0764-CPR-0249 – UK – vs01**

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

ROCKPANEL PLY 6 mm, 8 mm and 10 mm supplied with a primer coating

2. *Intended use / es:*

External cladding for walls, fascias, soffits and ceilings

3. *Manufacturer:*

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

4. *System or systems of AVCP (assessment and verification of constancy of performance of the construction product) as set out in Annex V (amended by : OJ L 157, 27.5.2014, p. 76-79)*

System 1

5. *European Assessment Document:*

EAD 090001-00-0404 for Prefabricated compressed mineral wool boards with organic or inorganic finish and with specified fastening system, edition May 2015.

European Technical Assessment: ETA-13/0019 of 2015-11-03

Technical Assessment Body: ETA-Danmark A/S
Göteborg Plads 1, DK-2150 Nordhavn
Tel. +45 72 24 59 00
Fax +45 72 24 59 04
Internet www.etadanmark.dk

Notified Body: Materialprüfanstalt für das Bauwesen
Nienburger Strasse 3, D-30167 Hannover
Notified Body 0764
Tel. +49 511 762 3104
Fax +49 511 762 4001
Internet www.mpa-bau.de/

and issued: **Certificate of Constancy of performance No. 0764 - CPR – 0249**

6. Characteristics of the product

The ROCKPANEL PLY panels are surface treated with a four-layer water-borne polymer emulsion primer on one side, in a grey colour.

The physical properties of **ROCKPANEL PLY** 6 mm, 8 mm and 10 mm are indicated below:

- thickness 6 ± 0.3 mm, 8 ± 0.5 mm, 10 ± 0.5 mm
- length, max 3050 mm
- width, max 1250 mm
- density nominal 1000 -100 / +150 kg/m³
- bending strength length and width $f_{05} \geq 15$ N/mm²
- Modulus of Elasticity $m(E) = 3065$ N/mm²
- Thermal conductivity 0.35 W/(m.K)

Clause 7 contains the performances of ROCKPANEL PLY 6 mm, 8 mm and 10 mm.

7. Declared performance

Essential characteristics	Performance				Harmonised technical specification
Basic Requirements for construction works BR2 - Safety in case of fire	Table 1 - Euroclass classification of different constructions with ROCKPANEL PLY boards				
	Fixing method	Ventilated or non-ventilated	vertical wooden subframe PLY in the thicknesses		
			6 mm	8 mm	10 mm
	mechanically fixed	Non-ventilated. Cavity filled with mineral wool	B-s2,d0 closed 6 mm horizontal joint		
		Ventilated with EPDM gasket on the battens [a]		B-s2,d0 open 6 mm horizontal joint	
Ventilated with 6 mm ROCKPANEL PLY strips on the battens [b]		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					
					ETA-13/0019 issued 2015-11-03 EN 13501-1:2007+A1:2009

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 to a wooden subframe
 - The panels are backed with min. 50 mm mineral wool insulation with density 30-70 kg/m³ according to EN 13162 with a cavity between the panels and the insulation (mechanically fixed)
 - The boards are backed with min. 40 mm mineral wool insulation with density 30-70 kg/m³ according to EN 13162 without a cavity between the back of the board and the insulation behind the subframe (mechanically fixed – non ventilated)
- Substrates:
- Concrete walls, masonry walls

- Insulation:
- Ventilated constructions: The battens are backed with min. 50 mm mineral wool insulation with density 30-70 kg/m³ according to EN 13162 with a cavity of min. 28 mm between the panels and the insulation
 - Non-ventilated constructions: The panels are backed with min. 40 mm mineral wool with density 30-70 kg/m³ according to EN 13162 between the battens and min. 50 mm with density 30-70 kg/m³ behind the battens without a cavity
 - 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
 - The test result of a test with mineral wool insulation shall be valid, without test, for the same type of panel used without insulation, if the substrate chosen according to EN 13238 is made of panel with Euro-class A1 or A2 (e.g. fibres-cement panel).
- Subframe:
- Vertical softwood battens without fire retardant treatment, thickness minimum 28 mm
 - Test results are also valid for the same type of panel with aluminum or steel frame
 - Test results are also valid for the same type of panel with vertical LVL battens, without fire retardant treatment, thickness minimum 27 mm
- 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 of 30-70 kg/m³
 - 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 of the subframe
- Joints:
- Vertical joints are with an EPDM foam gasket backing (*Celdex EPDM Soft EP-4530*) or ROCKPANEL strip backing as described in Table 1 and horizontal joints can be open (ventilated constructions) or with an aluminum profile (ventilated and non-ventilated constructions)
 - Test results are also valid for higher thicknesses of ROCKPANEL strips
 - Test results are also valid in the case of using ROCKPANEL strips instead of EPDM foam gaskets
 - 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 aluminum profiles

The classification is also valid for the following product parameters:

- Thickness:
- Nominal 6 mm, individual tolerances ± 0.3 mm
 - Nominal 8 mm, individual tolerances ± 0.5 mm
 - Nominal 19 mm, individual tolerances ± 0.5 mm
- Density:
- Nominal 1000 kg/m³ , individual tolerances -100 / +150 kg/m³

Essential characteristics	Table 2 - Performance - Water vapour permeability and water permeability		Harmonised technical specification
	Property	Declared values	
BR3 – Hygiene, health and environment	Water vapour permeability	PLY 6, 8 and 10 mm: $s_d = 1.2$ 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-13/0019 issued 2015-11-03 EN ISO 12572 test condition B
	Water tightness of joints	NPD No performance determined	ETA-13/0019 issued 2015-11-03

Essential characteristics	Table 3 - Performance - Release of dangerous substances		Harmonised technical specification
	Property	Product specification	
BR 3 – Hygiene, health and environment	Content, emission and/or release of dangerous substances	Use category: Outdoor S/W2 The kit does not contain/release dangerous substances specified in TR 034, dated April 2013*), except Formaldehyde concentration 0,0105 mg/m ³ Formaldehyde class E1 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.	ETA-13/0019 issued 2015-11-03

*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, 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 Construction Products Regulation, 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 6 mm 'PLY' boards				Harmonised technical specification		
	Property	6 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	a fixing	b board			C18 / C24 [d]: 204 / 104 / 58
		screw fixing [a][e] with the use of 6 mm ROCKPANEL strips	400	400	C18 / C24 [d] : 204 / 104 / 58	A2 [c]	
		nail fixing (32 mm) [e] with the use of gaskets	300	400	C18 / C24 [d] : 100 / 67 / 64	B1 [c]	
		nail fixing (40 mm) [e] with the use of ROCKPANEL strips 6 mm	300	400	C18 / C24 [d] : 100 / 67 / 64	B2 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction			[d] Strength class BS EN 338				
[b] see Table 6			[e] for specifications fixings see Table 8				
[c] $k_{mod} = 1,10$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' 'Instantaneous' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]			Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P) : Service class 2 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 %.				

Essential characteristic	Table 4b - Performance - Design value of the axial load for mechanical fixing 6 mm 'PLY' boards				Harmonised technical specification		
	For service class 3 (see 'Note') and load-duration class ' Instantaneous ' [c] For hole diameters fixings see Table 5						
	Property	6 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
			a fixing	b board			
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	400	400	C18 / C24 [d] : 204 / 104 / 58	A1 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		screw fixing [a][e] with the use of 6 mm ROCKPANEL strips	400	400	C18 / C24 [d] : 204 / 104 / 58	A2 [c]	
		nail fixing (32 mm) [e] with the use of gaskets	300	400	C18 / C24 [d] : 100 / 67 / 64	B1 [c]	
		nail fixing (40 mm) [e] with the use of ROCKPANEL strips 6 mm	300	400	C18 / C24 [d] : 100 / 67 / 64	B2 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction				[d] Strength class BS EN 338			
[b] see Table 6				[e] for specifications fixings see Table 8			
[c] $k_{mod} = 0,90$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 3 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses fully exposed"] and 'load-duration class' ' Instantaneous ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]				Note (according to BS EN 1995-1-1:2004+A1:2008 §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 6 mm 'PLY' boards				Harmonised technical specification		
	For service class 2 (see 'Note') and load-duration class ' Permanent ' [c] For hole diameters fixings see Table 5						
	Property	6 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
			a fixing	b board			
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	400	400	C18 / C24 [d] : 204 / 104 / 58	A1 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		screw fixing [a][e] with the use of 6 mm ROCKPANEL strips	400	400	C18 / C24 [d] : 204 / 104 / 58	A2 [c]	
		nail fixing (32 mm) [e] with the use of gaskets	300	400	C18 / C24 [d] : 100 / 67 / 64	B1 [c]	
		nail fixing (40 mm) [e] with the use of ROCKPANEL strips 6 mm	300	400	C18 / C24 [d] : 100 / 67 / 64	B2 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction				[d] Strength class BS EN 338			
[b] see Table 6				[e] for specifications fixings see Table 8			
[c] $k_{mod} = 0,60$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' ' Permanent ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]				Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P) : Service class 2 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 %.			

Essential characteristic	Table 4d - Performance - Design value of the axial load for mechanical fixing 8 mm 'PLY' boards					Harmonised technical specification	
	For service class 2 (see 'Note') and load-duration class ' Instantaneous ' [c] For hole diameters fixings see Table 5						
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	500	500	C18/C24[d]: 321 / 215 / 111	A3 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (32 mm) [e] with the use of gaskets	400	500	C18/C24[d]: 88 / 106 / 97	B3 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 1,10$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' ' Instantaneous ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P): Service class 2 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 %.		

Essential characteristic	Table 4e - Performance - Design value of the axial load for mechanical fixing 8 mm 'PLY' boards					Harmonised technical specification	
	For service class 3 (see 'Note') and load-duration class ' Instantaneous ' [c] For hole diameters fixings see Table 5						
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	500	500	C18/C24 [d] : 321 / 215 / 111	A3 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (32 mm) [e] with the use of gaskets	400	500	C18/C24 [d] : 88 / 106 / 97	B3 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 0,90$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 3 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses fully exposed"] and 'load-duration class' ' Instantaneous ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §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 4d).		

Essential characteristic	Table 4f - Performance - Design value of the axial load for mechanical fixing 8 mm 'PLY' boards					Harmonised technical specification	
	For service class 2 (see 'Note') and load-duration class ' Permanent ' [c] For hole diameters fixings see Table 5						
	Property	8 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – Safety in use	Design value of the axial load $X_d = X_k / \gamma_M$	screw fixing [a][e] with the use of gaskets	500	500	C18/C24 [d] : 321 / 215 / 111	A3 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (32 mm) [e] with the use of gaskets	400	500	C18 [d] : 77 / 77 / 77 C24 [d] : 88 / 93 / 93	B3 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 0,60$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' ' Permanent ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P) : Service class 2 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 %.		

Essential characteristic	Table 4g - Performance - Design value of the axial load for mechanical fixing 10 mm 'PLY' boards					Harmonised technical specification	
	For service class 2 (see 'Note') and load-duration class ' Instantaneous ' [c] For hole diameters fixings see Table 5						
	Property	10 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – 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] : 249 / 223 / 119	A4 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (40 mm) [e] with the use of gaskets	500	600	C18/C24 [d] : 78 / 66 / 64	B4 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 1,10$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' ' Instantaneous ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P) : Service class 2 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 %.		

Essential characteristic	Table 4h - Performance - Design value of the axial load for mechanical fixing 10 mm 'PLY' boards					Harmonised technical specification	
	For service class 3 (see 'Note') and load-duration class ' Instantaneous ' [c] For hole diameters fixings see Table 5						
	Property	10 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – 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] : 249 / 223 / 119	A4 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (40 mm) [e] with the use of gaskets	500	600	C18/C24 [d] : 78 / 66 / 64	B4 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 0,90$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 3 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses fully exposed"] and 'load-duration class' ' Instantaneous ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §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 4g).		

Essential characteristic	Table 4i - Performance - Design value of the axial load for mechanical fixing 10 mm 'PLY' boards					Harmonised technical specification	
	For service class 2 (see 'Note') and load-duration class ' Permanent ' [c] For hole diameters fixings see Table 5						
	Property	10 mm boards	Span in mm [b]		$X_d = X_k / \gamma_M$ in N Middle / Edge / Corner	Table in ETA	
		a fixing	b board				
BR 4 – 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] : 249 / 223 / 119	A4 [c]	ETA-13/0019 issued 2015-11-03 EN 14592:2008+A1:2012 (E)
		nail fixing (40 mm) [e] with the use of gaskets	500	600	C18/C24 [d] : 78 / 66 / 64	B4 [c]	
[a] with $\alpha \geq 30^\circ$: α is the angle between the screw axis and the grain direction					[d] Strength class BS EN 338		
[b] see Table 6					[e] for specifications fixings see Table 8		
[c] $k_{mod} = 0,60$ in accordance with Table 3.1 – 'Values of k_{mod} ' BS EN 1995-1-1:2004+A1:2008; For 'service class' 2 [NA to BS EN 1995-1-1:2004+A1:2008 Table NA.2 "External uses where member is protected from direct wetting"] and 'load-duration class' ' Permanent ' [Table NA.1 NA to BS EN 1995-1-1:2004+A1:2008]					Note (according to BS EN 1995-1-1:2004+A1:2008 §2.3.1.3 (3)P) : Service class 2 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 %.		

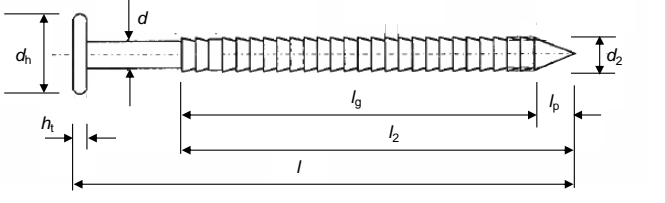
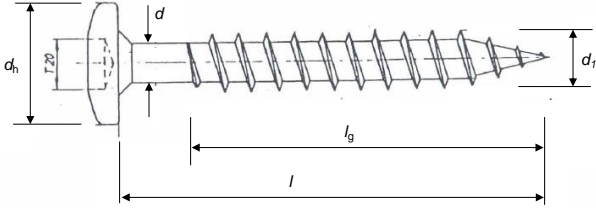
Essential characteristic	Table 5 – Performance mechanical fixings : hole diameters for ‘Durable’ boards					Harmonised technical specification
	Fixing type [a]	Fixed hole	Moving hole	Slotted hole	Board dimension considered	
BR4 – Safety in use	Screw	3.2	5.5	4.4 * 5.5	1200 * 3050	ETA-13/0019 issued 2015-11-03, Table 10
	Nail	2.5	4.0	2.8 * 4.0	1200 * 2300 [b]	

[a] for specifications fixings see table 8

[b] a larger panel length requires a larger hole and head diameter

Essential characteristic	Table 6 – Performance fixings according to table 4 and 5 with the required edge distances, maximum distances and fixing method							Harmonised technical specification		
	BR4 – Safety in use									
<p>l_{mv} : 'moving length' \leq 1510 mm l_m : length max 3050 mm</p> <p>fixed hole FP and slotted holes SP in the middle of the vertical part of the board. All other positions: moving points</p> <p>Fixing positions concerning loads M: fixing in intermediate position E: edge fixing C: corner fixing</p>										
Fixing type		b_{max}			a_{max}			a_1	a_2	
	6	8	10	6	8	10	6 / 8	10	6/8/10	
Screw	400	500	600	400	500	600	≥ 15	20	≥ 50	
Nail	400	500	600	300	400	500	≥ 15	20	≥ 50	

Essential characteristic	Table 7 – Performance shear strength mechanical fixings	Fixing	Failure load			Harmonised technical specification
			6 mm	8 mm	10 mm	
BR4 – Safety in use	Characteristic shear strength mechanical fixings - Average values	Screw	1160 N	1162 N	1406 N	ETA-13/0019 issued 2015-11-03
		Nail	900 N	863 N	935 N	

Essential characteristic	Table 8 - Specifications mechanical fixings		Geharmoniseerde technische specificatie
	Ring-shank nail 2.7/2.9 x 32 and 2.7/2.9 x 40 mm Stainless steel in accordance with EN 10088 Material number 1.4401 or 1.4578	Torx screws 4,5 x 35 mm Stainless steel in accordance with EN 10088 Material number 1.4401 or 1.4578	
BR4 – Safety in used			ETA-13/0019 issued 2015-11-03, Table 3 and 4
	l for nail 32 = 31 – 32,5 l for nail 40 = 39 – 40,5 l_2 for nail 32 = 24 – 26 l_2 for nail 40 = 32 – 34 $d = 2.6 – 2.8$ $d_2 = 2.8 – 3.0$ $l_p \leq 4.8$ $l_g = l_2 - l_p$ $d_h = 5.8 – 6.3$ $h_t = 0.8 – 1.0$	$l = 35 - 1.25$ $l_g = 26.25 – 28.5$ $d = 3.3 – 3.4$ $d_1 = 4.3 – 4.6$ $d_h = 9.6 - 0.4$	

Essential characteristic	Table 9 – Performance Impact resistance			Harmonised technical specification
	Impactor	Energy	Category	
BR4 – Safety in use	Hard body	Steel ball 0.5 kg	1 J	IV
			3 J	III, II and I

Essential characteristic	Table 10 – Performance dimensional stability		Harmonised technical specification
		Length	
BR4 – Safety in use	Cumulative dimensional change [a]	0.068%	0.065%
	Dry heat 23°C / 50% to 23°C / 0% (mm/m)	-0,284	-0,239
	Coefficient of thermal expansion (10 ⁻⁶ °K ⁻¹)	9.4	10.1
	Coefficient of moisture expansion 42% RH (mm/m) 50% to 92% RH after 4 days	0.237	0.244

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

Essential characteristic	Table 11 – Resistance to hygro-thermal cycles and Xenon Arc exposure			Harmonised technical specification
	Performance			
Aspects of durability and serviceability	Resistance to Hygro-thermal cycles		Pass	ETA-13/0019 issued 2015-11-03
	Resistance to Xenon Arc exposure <i>EOTA TR010 climate class S (Technical Report 010)</i> 5000 hours artificial weathering	Finish primer coating	Not relevant (NPD)	

8. *The performance of the product identified above is in conformity with the set of declared performance/s. 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:

ROCKWOOL B.V.
W.J.E. Dumoulin
Technical Director Operations DE-NL



At Roermond, on 28th January 2016
The Netherlands

DOP in accordance with Commission Delegated Regulation (EU) No 574/2014 of 21 February 2014 amending Annex III to Regulation (EU) No 305/2011 of the European Parliament and of the Council on the model to be used for drawing up a declaration of performance on construction products, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0574>, OJ L 159, 28.5.2014, p. 41-46