

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



Authorised and notified according to Article 10 of the Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products

MEMBER OF EOTA

European Technical Approval ETA-08/0343

Trade name:	ROCKPANEL Durable 6 mm finish Colours / Rockclad
Holder of approval:	Rockwool Rockpanel B.V. Konstruktieweg 2 NL-6045 JD Roermond Tel. +31 475 353 000 Fax +31 475 353 550
Generic type and use of construction product:	Prefabricated mineral wool boards with organic or inorganic finish and with specified fastening system
Valid from: to:	2008-12-18 2013-12-18
Manufacturing plant:	Rockwool Rockpanel B.V. Konstruktieweg 2 NL-6045 JD Roermond

This European Technical Approval contains: 17 pages including 6 annexes which form an integral part of the document



European Organisation for Technical Approvals
Europæisk Organisation for Tekniske Godkendelser

I LEGAL BASIS AND GENERAL CONDITIONS

1 This European Technical Approval is issued by ETA-Danmark A/S in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹⁾, as amended by Council Directive 93/68/EEC of 22 July 1993²⁾.
- Bekendtgørelse 559 af 27-06-1994 (afløser bekendtgørelse 480 af 25-06-1991) om ikrafttræden af EF direktiv af 21. december 1988 om indbyrdes tilnærmelse af medlemsstaternes love og administrative bestemmelser om byggevarer.
- Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC³⁾.
- Common Understanding of Assessment procedure no. 04.04/12 for Prefabricated mineral wool boards with organic or inorganic finish and with specified fastening system, dated June 2008.

2 ETA-Danmark A/S is authorized to check whether the provisions of this European Technical Approval are met. For this purpose a notified body shall execute twice a year surveillance, judgement and assessment of factory production control. Checking will take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.

3 This European Technical Approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European Technical Approval.

4 This European Technical Approval may be withdrawn by ETA-Danmark A/S pursuant to Article 5(1) of Council Directive 89/106/EEC.

- 1) Official Journal of the European Communities N° L40, 11 Feb 1989, p 12.
- 2) Official Journal of the European Communities N° L220, 30 Aug 1993, p 1.
- 3) Official Journal of the European Communities N° L 17, 20 Jan 1994, p 34.

5 Reproduction of this European Technical Approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of ETA-Danmark A/S. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Approval.

6 This European Technical Approval is issued by ETA-Danmark A/S in English. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

II SPECIAL CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of product and intended use

General

RockPanel Durable Colours 6 mm are prefabricated compressed mineral wool boards with thermo-setting synthetic binders. The boards are fastened to timber subframes. Fastening to the timber subframes are carried out with corrosion resistant nails or screws. Mechanical fasteners, joint strips and aluminium profiles are specified by the ETA-holder.

The RockPanel Durable Colours panels are surface treated with a four-layer water-based acrylic paint on one side, in a range of colours.

The physical properties of the panels are indicated in table 1:

Table 1:

Property	Value
Thickness	$6 \pm 0,3$ mm
Length, max	3050 mm
Width, max	1500 mm
Density, nominal	1050 ± 150 kg/m ³
Bending strength, length and width	$f_{05} \geq 27$ N/mm ²
Modulus of elasticity	$m(E) = 4015$ N/mm ²
Thermal conductivity	$0,35$ W/(m × K)
Coefficient of thermal expansion, length and width	$\alpha = 11 \times 10^{-3}$ mm/m × K
Coefficient of moisture expansion 23 °C/50 %RH to 92 %RH	0.310 mm/m after 4 days

Finishes

The finish is indicated in table 2. The paints are provided in a number of colours.

Table 2

RockPanel Durable Colours: (Water based acrylic paint)	Colourpaint
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The colourfastness of the panels is indicated in table 3.

Table 3:

Property	Value (ISO 105 A02)
Colour fastness after 3000 hours artificial weathering	RockPanel Durable Colours: 4 (finish red: 3)

Sub-constructions

The panels are attached to the building by fixing to a timber subframe.

The vertical battens should have a minimum thickness of 28 mm.

Joints

Aluminium profiles

The horizontal joints between the panels can be open in the case of a ventilated construction (subframe protection appears from table 4). Open joints are not watertight and the construction behind the battens shall establish the water tightness of the structure.

The horizontal joints between the panels can be made with a Protektor 9086 extruded aluminium chair profile or equivalent in the case of panels mechanically fixed on timber battens. The chair profile has an overlap of at least 15 mm on the board above the profile. See annex 1.

Foam gasket

A 3 mm thick and 60 mm wide EPDM foam gasket (self adhering backside) is fixed to the timber battens. For vertical joints between the panels, the 60 mm wide gasket is used and for the intermediate battens, the 36 mm wide gasket is used.

Fasteners

The panels are mechanically fixed either to vertical timber battens or vertical timber battens with intermediate Rockpanel strips. The mechanical fastening to timber battens is carried out with either RockPanel stainless steel screws 4,5 × 35 mm no 1.4401 or 1.4578 (EN 10088) with heads in the colour of the panels or Rockpanel ring shank nails 2,7/2,9 × 32 mm or 40 mm no 1.4401 or 1.4578 (EN 10088) with heads in the colour of the panels, see annex 3.

The maximum fixing distances, hole diameter and characteristic load appears from annex 2, tables 5, 6, 7 and 8.

Intended use

The boards are intended for external cladding and for fascias and soffits. The cladding on vertical timber battens with mechanically fixed boards can be carried out with or without ventilated cavities at the back.

Assumed working life

The assumed intended working life of the boards for the intended use is 25 years, provided that they are subject to appropriate use and maintenance.

An “assumed intended working life” means that it is expected that, when this working life has elapsed, the real working life may be, in normal use conditions, considerably longer without major degradation affecting the essential requirements.

The indications given as to the working life of the boards cannot be interpreted as a guarantee given by Rockwool Rockpanel B.V or ETA-Danmark A/S.

2 Characteristics of product and assessment

CUAP para.	Characteristic	Assessment of characteristic
	2.1 Mechanical resistance and stability	Not relevant.
	2.2 Safety in case of fire	
5.2.1	Reaction to fire	Classification of panels: See table 4
	2.3 Hygiene, health and the environment	
5.3.1	Water vapour permeability	Durable Colours: $S_d < 1,80$ m at 23°C and 85 %RH The designer shall consider the relevant needs for ventilation and the critical moisture content for all the integrated materials.
5.3.2	Water permeability incl. joints for non-ventilated applications	50 Pa
5.3.3	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 ³ Formaldehyde class E1
	2.4 Safety in use	
5.4.2	Fixing position and characteristic fixing pull-through load M/E/C (Middle/Edge/Corner) of mechanical fixings	Rockpanel screws: 668/460/340 N Rockpanel nails: 455/374/311 N (for edge distances and distances between fasteners; see annex 2)
	Shear strength mechanical fixings Characteristic values	RockPanel nails: Failure load: 1062 N Deformation: 12 mm RockPanel screws: Failure load: 1182 N Deformation: 8 mm
	Pull-out strength mechanical fixings Strength class wood C16 – 310 kg/m ³ Strength class wood C24 – 350 kg/m ³	Screw: 651 N ($l_{ef} \geq 26$ mm) Screw: 524 N ($l_{ef} \geq 21$ mm) Nail : 290 N ($l_{ef} \geq 23$ mm) Screw: 830 N ($l_{ef} \geq 26$ mm) Screw: 668 N ($l_{ef} \geq 21$ mm) Nail : 369 N ($l_{ef} \geq 23$ mm)
5.4.4	Impact resistance For definition of use category see Annex 6 Table 12	Hard body impact– steel ball 0,5 kg: Category I Soft body impact – ball 3 kg : Category III
5.4.5	Dimensional stability Cumulative dimensional change % Coefficient of thermal expansion m/m.°K coefficient of moisture expansion 42% RH difference after 4 days mm/m	Length: 0,088 % Width: 0,094 % Length: $10,9 \cdot 10^{-6}$ Width: $11,0 \cdot 10^{-6}$ Length: 0,293 Width: 0,310

Characteristic		Assessment of characteristic
5.4.6	Wind load resistance M/E/C	Characteristic strength Screws : 902/363/222 N Nails : 716/314/263 Failure load: Screws: 4980/5412/5547 N/m ² Nails : 3043/3406/5148 N/m ²
	Mechanical resistance of panels	See section 1, table 1
2.5	Protection against noise	Not relevant
2.6	Energy economy and heat retention	Not relevant
2.7	Related aspects of serviceability	
5.7.1	Resistance to Hygrothermal cycles	Pass
5.7.2	Resistance to Xenon Arc exposure	Pass

*) In accordance with <http://europa.eu.int/~comm/enterprise/construction/internal/dangsub/dangmain.htm> In addition to the specific clauses relating to dangerous substances contained in this European Technical Approval, 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.

Table 4 Reaction to fire classification

The panels have been classified in accordance with EN 13501-1 with the following parameters:

Fixing method	Ventilated or non-ventilated	Vertical wooden battens
		Durable Colours
Mechanically fixed	Ventilated with gasket on the batten [a]	B-s2,d0 open 6 mm horizontal joint
	Ventilated with RockPanel strips 6 or 8 mm on the battens [b]	B-s2,d0 open 6 mm horizontal joint
	Non-ventilated Cavity filled with mineral wool	B-s1,d0 closed 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

Further to the limitations described in section 1 of the ETA, the following field of application applies.

Euroclass classification

The classification mentioned in table 4 is valid for the following end use conditions:

Mounting:

- Mechanically fixed as described in table 4, which are attached to the subframe mentioned below

Substrates:

- The results are also valid for a wall made of timber frame (see “Insulation” for the backing of the panels)
- Test results are also valid for the same type of panel used without insulation, if the substrate chosen is made with Euro-class A1 or A2

Insulation:

- The panels are backed with minimal 50 mm mineral wool insulation with density 51 – 69 kg/m³ with a cavity between the panels and the insulation (all constructions with the exception of ‘non-ventilated’)
- 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:

- 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:

- The depth of the cavity is minimum 28 mm
- Unfilled or filled with insulation of mineral wool with a density 51-69 kg/m³
- 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 4 and horizontal joints can be open or with an aluminium profile.
- 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:

- Maximum nominal 6 mm, individual tolerances $\pm 0,3$ mm

Density

- Maximum nominal 1050 kg/m³ , individual tolerances -150 / +150 kg/m³

3 Attestation of Conformity and CE marking

3.1 Attestation of Conformity system

The attestation of conformity applied to this product specified by the European Commission in Mandate Construct 98/437/EC, Annex 3 is System 1 since there is a clearly identifiable stage in their production which results in an improvement of fire performance due to the limiting of organic material.

a) Tasks for the manufacturer:

- (1) factory production control,
- (2) further testing of samples taken at the factory by the manufacturer in accordance with a prescribed test plan

b) Tasks for the notified body:

- (1) Initial type testing of the product
- (2) initial inspection of the factory and of factory production control
- (3) continuous surveillance, assessment and approval of factory production control.

3.2 Responsibilities

3.2.1 Tasks of the manufacturer

3.2.1.1 Factory production control

The manufacturer has a factory production control system in the plant and exercises permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer are documented in a systematic manner in the form of written policies and procedures. This production control system ensures that the product is in conformity with the European Technical Approval.

The manufacturer shall only use raw materials supplied with the relevant inspection documents as laid down in the control plan¹. The incoming raw materials shall be subject to controls and tests by the manufacturer before acceptance.

The quality control on the components includes checks on:

Dimensions
Material quality
Density

The control plan with the actions to be undertaken by the manufacturer of the boards in the procedure of attestation of conformity is laid down in Table 9 Annex 4. Table 10 contains the special methods of control testing.

The results of factory production control are recorded and evaluated.

The records shall be presented to ETA-Danmark A/S on request

ETA-Danmark A/S maintains a file with the reports of the continuous surveillance by a notified body.

This file includes information on the specified fasteners, and other associated components

3.2.2. Tasks of notified bodies

3.2.2.1 Initial type testing of the product

For initial type testing the results of the tests performed as part of the assessment for the European Technical Approval shall be used unless there are changes in the production line or plant. In such cases the necessary initial type testing has to be agreed between ETA-Danmark A/S and the notified body

3.2.2.2 Initial inspection of the factory and of factory production control

The relevant properties are listed in Table 9.

3.2.2.3 Continuous surveillance, assessment and approval of factory production control.

The minimum surveillance frequency by a notified body is twice a year. The reaction to fire property must be assessed by a notified body every two years.

The notified body will sample the panels for the reaction to fire tests and will determine one of the construction types in accordance with table 4 and the colour of the finish (table 2) to be tested.

3.3 CE marking

The CE marking shall be affixed on every pallet lable of each delivery. The CE symbol shall be in accordance with Directive 93/68/EC and accompanied by the following information:

- name or identification mark of producer and his registered address
- the last two digits of the year in which the CE marking was affixed
- the number of the European Technical Approval
- declaration concerning dangerous substances

¹ The control plan has been deposited at the ETA-Danmark A/S and is only made available to the approved bodies involved in the conformity attestation procedure.

4 Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

All materials shall be manufactured by Rockwool Lapinus Productie B.V. or by subcontractors under the responsibility of Rockwool Rockpanel B.V.

The European Technical Approval is issued for the product on the basis of agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

4.2 Installation

Installation details and application details for the man on site are given by Rockwool Rockpanel B.V. in the manufacturer's application guide technical dossier which forms part of the documentary material for this ETA. On the protective film of every board the website is printed which guides the end user to the most actual information.

For non-ventilated use, the substrate shall be airtight.

The boards are in general mounted with a joint width of between 5 and 8 mm.

If the joints are to be sealed, only durable sealants should be used with a good adhesion on the edges of the boards and a good UV-stability. To prevent sticking to the subframe, a PE-film or tape can be used.

The boards for external cladding shall not be fixed over building or settlement joints. Where settlement joints are located in the building the same movements of the building and substructure shall be possible in the external cladding.

The water diffusion resistance of the boards is declared as a means for the designer to decide whether they are sufficiently vapour permeable, especially when used for cladding without ventilated cavities at the back. The designer can then establish that condensation in the entire wall as a result of water

vapour diffusion will not occur or will occur only to an extent where damage is not caused during the condensation period and the wall will dry out again during the evaporation period. The designer shall consider the critical moisture content for all the integrated materials.

For non-ventilated intended use, the pressure level preceding the pressure level where leakage occurs is declared as a means for the designer to decide on the necessity of the use of a vapour control membrane.

The panels should not be taken into account when designing a timber stud wall to resist racking forces.

The holes for the fixings are drilled into the panels not less than 15 mm from a vertical edge and 50 mm from a horizontal edge (see Annex 2). The panels are fixed making sure that the screws are not over-tightened.

4.3 Packaging, storage and transportation

The panels with a protective film on the finish are delivered on pallets and with a protective cover and edge protection.

The panels shall be stacked on a dry sub-soil and protected against rain.

Pallets shall be stacked no more than two high.

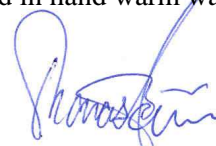
4.4 Maintenance and repair

A circular saw with hard point teeth is used for cutting of the boards. For special shapes a jigsaw with wolfram grid can be used. Edge painting after cutting for durability reasons is not necessary; edge painting has only an aesthetic function.

The choice of fixing (nails or screws) depends on the aesthetical view. The edge distance of the mechanical fixing depends on the position of the fixing (corner or edge).

If the product is used in a not ventilated construction, repainting of the Durable Colours is only allowed with a vapour permeable finish with an s_d -value no more than 0.2 m; in general waterborne acrylic paint meets this requirement.

The boards can be cleaned with ordinary cleaning agents dissolved in hand warm water.

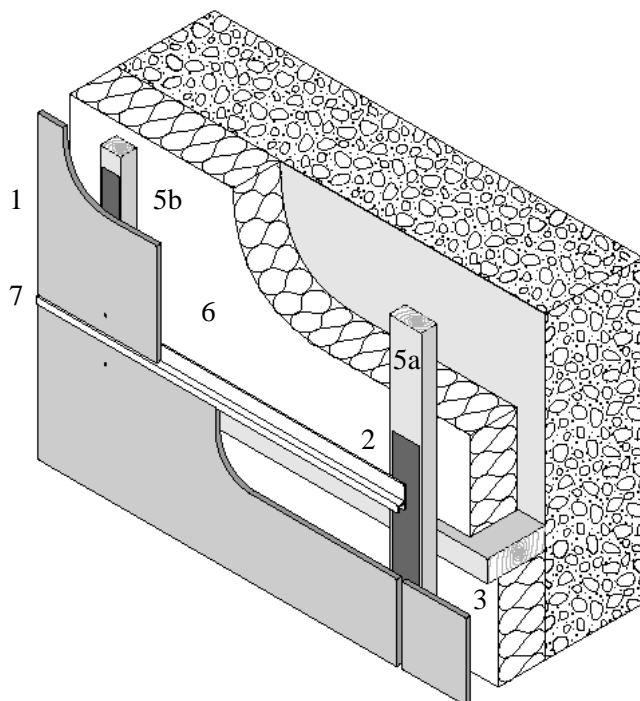


Thomas Bruun
Manager, ETA-Danmark

Annex 1

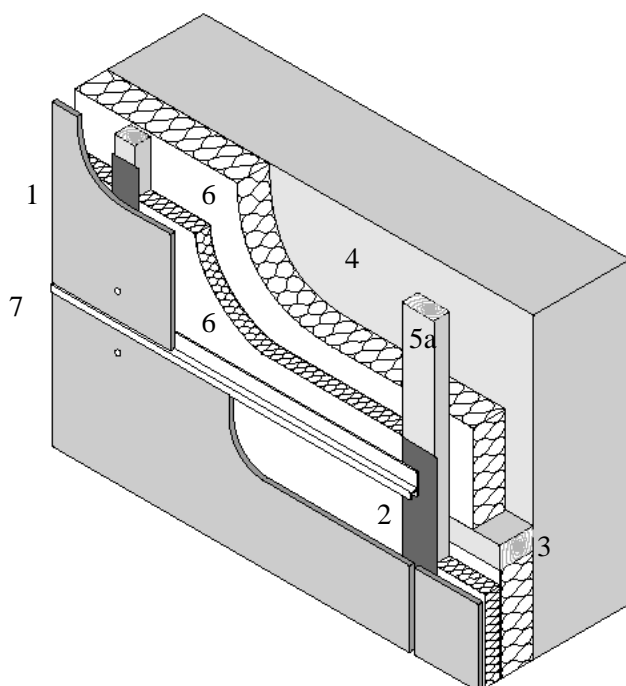
Pre-fabricated compressed mineral wool boards with organic or inorganic finish

Figure 1. Ventilated intended use

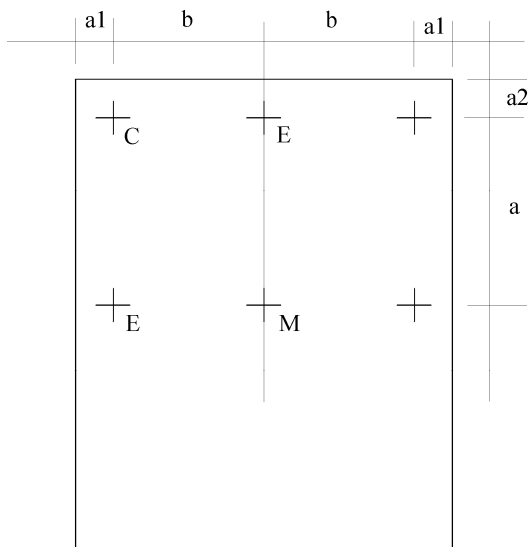


1. Compressed mineral wool board with organic or inorganic finish
2. EPDM foam gasket
3. Timber beam
4. Vapour barrier
5. Batten: a - joint and b - intermediate
6. Insulation
7. Protector 9086 extruded aluminium chairprofile or equivalent

Figure 2. Non-ventilated intended use



Annex 2
Maximum edge distances, hole diameter and maximum characteristic loads



- C: Fixing in corner
- E: Fixing at edge
- M: Fixing at intermediate position

Table 5: Maximum edge distances, maximum distances between fastenings and hole diameter of fixing points in mm						
Fixing type	maximum distances				hole diameter fixing	
	b_{max}	a_{max}	a1	a2	fixed	moving
Screw	400	300	15	50	3,2	6,0
Nail	480	300	15	50	2,5	3,8 [a]

[a]: board dimension considered 1200*2420 mm

Characteristic fixing load of a screw fixing (table 6 and 7)

The characteristic fixing load of a location of a screw fixing for wood class C16 can be found by taking in the column for the location (M, E or C) the minimum value of the rows (1), (2) and (4)*(6). The value found is valid for a panel with a maximum span in accordance with (7) and a maximum fixing distance in accordance with (8).

Table 6: Characteristic fixing loads for the combination screw and 6 mm boards (with the use of gaskets)							
board thickness			6 mm (with the use of a gasket)			(1)	
location of the fixing in the board			M-middle	E-edge	C-corner		
pull-through N			668	460	340		
wind suction							
strength N			902	363	222	(2)	
average wind load in N/m ²			4980	5412	5547	(3)	
pull-out DIN 1052:2004-8 [a] [c]							
strength class		C16	310 kg/m ³	651	651	651	(4)
wood (EN 338)		C24	350 kg/m ³	830	830	830	(5)
modification factor for climate class k_{mod}			k_{mod} [b]			(6)	
board span b			400			(7)	
fixing distance a			300			(8)	

[a]: pull-out strength must be multiplied with the modification factor for the climate class k_{mod} (country specific)

[b]: modification factor will be a part of the content of the application guide of the specific European country

[c]: angle α between shaft and the wood grain: $45^\circ \leq \alpha \leq 90^\circ$

Table 7: Characteristic fixing loads for the combination screw and 6 mm boards (with the use of Rockpanel strips)							
board thickness			6 mm (with the use of a 6 mm Rockpanel strip)			(1)	
location of the fixing in the board			M-middle	E-edge	C-corner		
pull-through N			668	460	340		
wind suction							
strength N			902	363	222	(2)	
average wind load in N/m ²			4980	5412	5547	(3)	
pull-out DIN 1052:2004-8 [a] [c]							
strength class		C16	310 kg/m ³	524	524	524	(4)
wood (EN 338)		C24	350 kg/m ³	668	668	668	(5)
modification factor for climate class k_{mod}			k_{mod} [b]			(6)	
board span b			400			(7)	
fixing distance a			300			(8)	

[a]: pull-out strength must be multiplied with the modification factor for the climate class k_{mod} (country specific)

[b]: modification factor will be a part of the content of the application guide of the specific European country

[c]: angle α between shaft and the wood grain: $45^\circ \leq \alpha \leq 90^\circ$

Characteristic fixing load of a nail fixing (table 8)

The characteristic fixing load of a location of a nail fixing for wood class C24 can be found by taking in the column for the location (M, E or C) the minimum value of the rows (1), (2) and (5)*(6). The value found is valid for a panel with a maximum span in accordance with (7) and a maximum fixing distance in accordance with (8).

Table 8 Characteristic fixing loads for the combination nail and 6 mm boards:

<ul style="list-style-type: none"> - 32 mm nail and the use of gaskets - 40 mm nail and the use of Rockpanel strips in the thickness 6 or 8 mm 							
board thickness		6 mm				(1)	
location of the fixing in the board		M-middle	E-edge	C-corner			
pull-through N		455	374	311			
wind suction							
		strength N	716	314	263		(2)
		average wind load in N/m ²	3043	3406	5148		(3)
pull-out DIN 1052:2004-8 [a] [c]							
strength class wood (EN 338)	C16	310 kg/m ³	290	290	290		(4)
	C24	350 kg/m ³	369	369	369	(5)	
modification factor for climate class k _{mod}			k _{mod} [b]			(6)	
board span b		480				(7)	
fixing distance a		300				(8)	

[a]: pull-out strength must be multiplied with the modification factor for the climate class k_{mod} (country specific)

[b]: modification factor will be a part of the content of the application guide of the specific European country

[c]: angle a between shaft of nail and wood grain: $80 \leq a \leq 90^\circ$

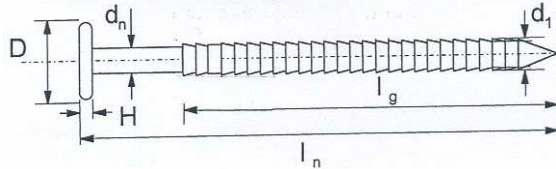
Annex 3
Fastener specification

Ring-shank nail

Stainless steel in accordance with EN 10088

Material number 1.4401 or 1.4578

$d_n =$	2,6 – 2,8
$d_1 =$	2,8 – 3,0
$l_n =$	31 – 32,5 or 39 – 40,5
$l_g =$	24-26 or 32 – 34
$D =$	5,8 – 6,3
$H =$	0,8 – 1,0

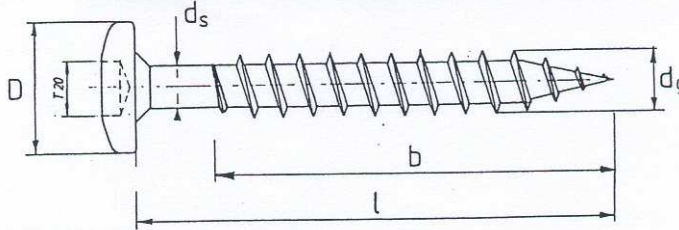


Torx screws

Stainless steel in accordance with EN 10088

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



Annex 4

Table 9 – Control plan for the manufacturer

Nr	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
(1)	(2)	(3)	(4)	(5)	(6)
Factory production control (FPC) [including testing of samples in accordance with a prescribed test plan]*					
1	Board thickness	EN 325	$6 \pm 0,3$ mm	40 [a]	One board for every 200 boards produced
2	Density	EN 323	1050 ± 150 kg/m ³	40 [a]	One board for every 200 boards produced
3	Bending strength dry parallel and perpendicular to the production direction	EN 310	$f_{05} \geq 27$ N/mm ² in accordance with EN 1058	20 (length) + 20 (width) [a]	One board for every 200 boards produced
4	Bending strength after ageing parallel and perpendicular to the production direction	EN 310 Ageing in accordance with description in table 10	lowest individual strength $f \geq 22$ N/mm ²	3 (length) + 2 (width)	One board for every 200 boards produced
5	Water absorption after 4 days	see table 10	≤ 2 weight % after 4 days; if sample fails, the 2 nd sample must be tested.	1 (2 in the case of fail)	One board for every 200 boards produced
6	Organic material content (resin binder)	Glowing at 650° for at least 60 min. <i>Remark: time depends on the type of oven</i>	$12 \pm 1,5$ weight %	40 [a]	One board for every 200 boards produced
7	Reaction to fire	EN 13162	Table 4 EN 13501-1	Three specimens [b]	every two years
Initial type-testing of the product (ITT) (for system 4 only)					
1	As described in section 4 of the CUAP				
[a] amount of samples from four different boards					
[b] three sets of long plus short wing (EN 13823:2003-01 clause 5.4)					

Annex 5

Table 10 Special methods of control and testing used for the evaluation

Bending strength after ageing					
	<p>Ageing of the 5 test pieces in (tab)water from 70°C (with surface tension changing additives : for instance 0,5 ml Triton per litre) for 30 minutes.</p> <p>Determination of the bending strength in accordance with EN-310 within 20 minutes after the ageing period in a test room with an air temperature between 17 and 23°C.</p>				
Water absorption					
	<p>The water absorption by the edges must be determined on test pieces W1 in the size 50*400 mm. The dimensions and the weight of the test pieces is determined.</p> <p>The sample is wrapped with aluminium foil with the exception of one 50 mm edge.</p> <p>The test pieces are vertically placed in a bucket with tab water, with the 50 mm size without aluminium foil horizontally in the water. The edge must be 1 to 5 mm in the water (without additives).</p>				
	<p>Test conditions:</p> <table border="1"> <tr> <td>Water temperature</td> <td>17 – 23°C</td> </tr> <tr> <td>room temperature</td> <td>17 – 23°C</td> </tr> </table>	Water temperature	17 – 23°C	room temperature	17 – 23°C
Water temperature	17 – 23°C				
room temperature	17 – 23°C				
	<p>The diagram illustrates the water absorption test setup. A test piece is shown in cross-section, partially submerged in water. The top portion of the test piece is covered with aluminium foil, indicated by a dashed line and the label 'alu-foil'. A specific 50 mm edge of the test piece is left uncovered and is shown dipping into the water. A vertical double-headed arrow next to the submerged edge indicates that the depth of immersion must be between 1 and 5 mm. The water level is indicated by a horizontal line and the label 'water'.</p>				

Annex 6**Table 11 - Control plan for the notified body (bodies)**

Nr	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
(1)	(2)	(3)	(4)	(5)	(6)
Initial type-testing of the product (ITT)					
1	The approval tests are acceptable for ITT				
Initial inspection of factory and factory production control (FPC)					
1	See table 9				
Continuous surveillance, judgment and assessment of factory production control (FPC)					
1	See table 9				

Table 12 – Impact resistance : Definition of use categories

Use category	Description
I	A zone readily accessible at ground level to the public and vulnerable to hard body impacts but not subjected to abnormally rough use.
II	A zone liable to impacts from thrown or kicked objects, but in public locations where the height of the kit will limit the size of the impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care.
III	A zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.
IV	A zone out of reach from ground level

The hard body impact with steel ball represents the action from heavy, non-deformable objects, which accidentally hit the kit.