



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

UK Technical Assessment	UKTA-0836-22/6407 of 13/10/2022
Technical Assessment Body issuing the UK Technical Assessment:	British Board of Agrément
Trade name of the construction product:	Aquapanel Cement Board 6 mm, Aquapanel Cement Board 8 mm, Aquapanel Cement Board 8 mm (Hydrophobic)
Product family to which the construction product belongs:	Cement Bonded Board
Manufacturer:	Knauf Aquapanel GmbH & Co. KG Zur Helle 11 58638 Iserlohn DEUTSCHLAND
Manufacturing plant(s):	1. Knauf Aquapanel GmbH & Co. KG Zur Helle 11 58638 Iserlohn DEUTSCHLAND 2. Knauf Aquapanel GmbH & Co. KG Sehensander Weg 19 86633 Neuburg a.d. Donau DEUTSCHLAND
This UK Technical Assessment contains:	12 pages including 3 annexes which form an integral part of this assessment
This UK Technical Assessment is issued in accordance with The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 on the basis of:	UKAD 21-0024-0504 <i>Cement-bonded board</i>

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1 Technical description of the product

The cement bonded board is a specific board manufactured from a mixture of cement according to EN 197-1⁽¹⁾, additions, admixtures, mineral lightweight aggregates and water. The board is reinforced on both sides with alkali-resistant glass fibre fabric.

The cement bonded board is marketed as:

- AQUAPANEL Cement Board 6 mm
- AQUAPANEL Cement Board 8 mm
- AQUAPANEL Cement Board 8 mm (hydrophobic)

The surfaces of the boards are not coated. The surface of the AQUAPANEL Cement Board 8 mm (hydrophobic) is treated with a hydrophobic agent to prevent absorption of humidity during the installation (construction phase).

The boards are manufactured with a thickness of 6 mm and 8 mm with a nominal length from 900 mm to 2500 mm and nominal width of 900 mm or 1200 mm (see Annex C).

The boards are used with one of the following fixing elements:

- AQUAPANEL Maxi Screw SN - needlepoint according to Annex A, page 1
- AQUAPANEL Maxi Screw SB - drill point according to Annex A, page 2

(1) EN 197-1 Cement - Part 1: *Composition, specifications and conformity criteria for common cements*

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

The Cement bonded boards are intended to be used for non-structural partitions, as lining, and for the manufacture of floor construction elements.

AQUAPANEL Cement Board 6 mm is intended to be used for non-structural internal partitions, as lining of interior components, for suspended ceilings and floor construction elements in indoor applications.

AQUAPANEL Cement Board 8 mm is intended to be used for non-structural internal partitions, as lining of interior components, for suspended ceilings in indoor applications.

AQUAPANEL Cement Board 8 mm (hydrophobic) is intended to be used for non-structural external planking of walls and suspended ceilings in exterior applications.

The performances given in Section 3 are only valid if the cement bonded boards AQUAPANEL Cement Board are used in compliance with the specifications and conditions given in Annex B1 and B2.

The verifications and assessment methods on which this UK Technical Assessment is based lead to the assumption of a working life of the cement bonded boards AQUAPANEL Cement Board of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

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

3.1 Mechanical resistance and stability (BWR 1)

The essential characteristics regarding mechanical resistance and stability are included under the Basic Works Requirement safety in use.

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1 according to EN 13501-1 ⁽¹⁾

(1) EN 13501-1 *Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests*

3.3 Health, hygiene and the environment (BWR 3)

Essential characteristic	Performance
Vapour Permeability	d = 6 mm : $\mu = 48.4$ d = 8 mm (hydrophobic): $\mu = 40.1$
Content, emission and/or release of dangerous substances Substances classified as EU-cat. Carc. 1A/1B ⁽¹⁾ Substances classified as EU-cat. Muta. 1A/1B ⁽¹⁾ Substances classified as EU-cat. Acute Tox. 1, 2 and/or 3; substances classified as EU-cat. Repr. 1A/1B; substances classified as EU-cat. STOT SE 1 and/or STOT RE 1 ⁽¹⁾	The product does not contain these dangerous substances actively used. ⁽²⁾
SVOC and VOC	No performance assessed.
Release scenarios regarding BWR 3 according to EOTA TR 034: IA1, IA2	

(1) In accordance with Regulation (EC) No 1272/2008.

(2) Assessment based on a detailed manufacturer's statement on dangerous substances.

3.4 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Thickness	e = 6.0 mm ± 0.6 mm e = 8.0 mm ± 0.8 mm
Dimension (length and width)	Annex C
Straightness of edges	0.1 % = Level I acc. to EN 12467
Squareness of edges	2 mm·m = Level I acc. to EN 12467
Density	d = 6 mm: $\rho_{\text{mean}} = 1250 \text{ kg}\cdot\text{m}^{-3}$ d = 8 mm: $\rho_{\text{mean}} = 1230 \text{ kg}\cdot\text{m}^{-3}$
Moisture content	d = 6 mm: H ≤ 13 % by mass d = 8 mm (hydrophobic): H ≤ 13 % by mass
Water impermeability	Passed
Dimensional stability - length	d = 6 mm / 8 mm / 8 mm (hydrophobic): $\delta l_{65.85} = 0.38 \text{ mm}\cdot\text{m}^{-1}$ $\delta l_{65.30} = -0.32 \text{ mm}\cdot\text{m}^{-1}$
Dimensional stability - thickness	d = 6 mm / 8 mm / 8 mm (hydrophobic): $\delta l_{65.85} = 0.3 \%$ $\delta l_{65.30} = -0.3 \%$
Bending strength	d = 6 mm $f_{m,0,k} = 6.3 \text{ MPa}$ $f_{m,90,k} = 13.4 \text{ MPa}$ $E_{m,0,\text{mean}} = 930 \text{ MPa}$ $E_{m,90,\text{mean}} = 1690 \text{ MPa}$
Bending modulus of elasticity	d = 8 mm (hydrophobic) $f_{m,0,k} = 6.9 \text{ MPa}$ $f_{m,90,k} = 10.9 \text{ MPa}$ $E_{m,0,\text{mean}} = 800 \text{ MPa}$ $E_{m,90,\text{mean}} = 1750 \text{ MPa}$
Pull through resistance	d = 6 mm / d = 8 mm AQUAPANEL Maxi Screw SN" (Annex A, page 1) $f_{\text{head},k} = 2.3 \text{ N}\cdot\text{mm}^{-2}$ / $f_{\text{head},k} = 2.8 \text{ N}\cdot\text{mm}^{-2}$ AQUAPANEL Maxi Screw SB" (Annex A, page 2) $f_{\text{head},k} = 2.3 \text{ N}\cdot\text{mm}^{-2}$ / $f_{\text{head},k} = 2.8 \text{ N}\cdot\text{mm}^{-2}$ $IR_{\text{mean}} = 12.5 \text{ mm}\cdot\text{mm}^{-1}$
Water adsorption	$w_a =$ No performance assessed.

Essential characteristic	Performance
Freeze-thaw resistance for category B and D	d = 8 mm (hydrophobic): $R_{L,FTC} = 0.94$ d = 6 mm: $R_{L,FTC} = \text{No Performance Assessed}$
Heat-rain resistance for category B Warm water resistance for category B and D	d = 8 mm (hydrophobic): Passed d = 8 mm (hydrophobic): $R_{L,WW} = 0.82$ d = 6 mm: $R_{L,WW} = 0.75$
Soak-dry resistance for category B and D	d = 8 mm (hydrophobic): $R_{L,SD} = 1.0$ d = 6 mm: $R_{L,SD} = 1.0$
Durability of metal parts	Annex B1

3.5 Protection against noise (BWR 5)

Not Assessed

3.6 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity	d = 6 mm: $\lambda_{10,tr} = 0.34 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ d = 8 mm: $\lambda_{10,tr} = 0.36 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ d = 8 mm (hydrophobiert): $\lambda_{10,tr} = 0.36 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$
Air permeability	The AQUAPANEL Cement Board 6 mm respectively The AQUAPANEL Cement Board 8 mm respectively The AQUAPANEL Cement Board 8 mm (hydrophobic) is not permeable to air.

3.7 Sustainable use of natural resources (BWR 7)

Not Assessed

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied

4.1 System of assessment and verification of constancy of performance

According to UKAD 21-0024-0504 and Annex V of the Construction Products Regulation (Regulation (EU) 305/2011 as brought into UK law and amended, the system of assessment and verification of constancy of performance (AVCP) 4 applies.

In addition, with regard to reaction to fire for products covered by this UKAD the applicable European legal act is: 1989/106/EC (EU)

The system to be applied is: 3

In addition, with regard to dangerous substances for products covered by this UKAD the applicable European legal act is: 98/437/EC (EU)

The system to be applied is: 3

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

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

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

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

On behalf of the British Board of Agrément



Date of Issue: 13 October 2022

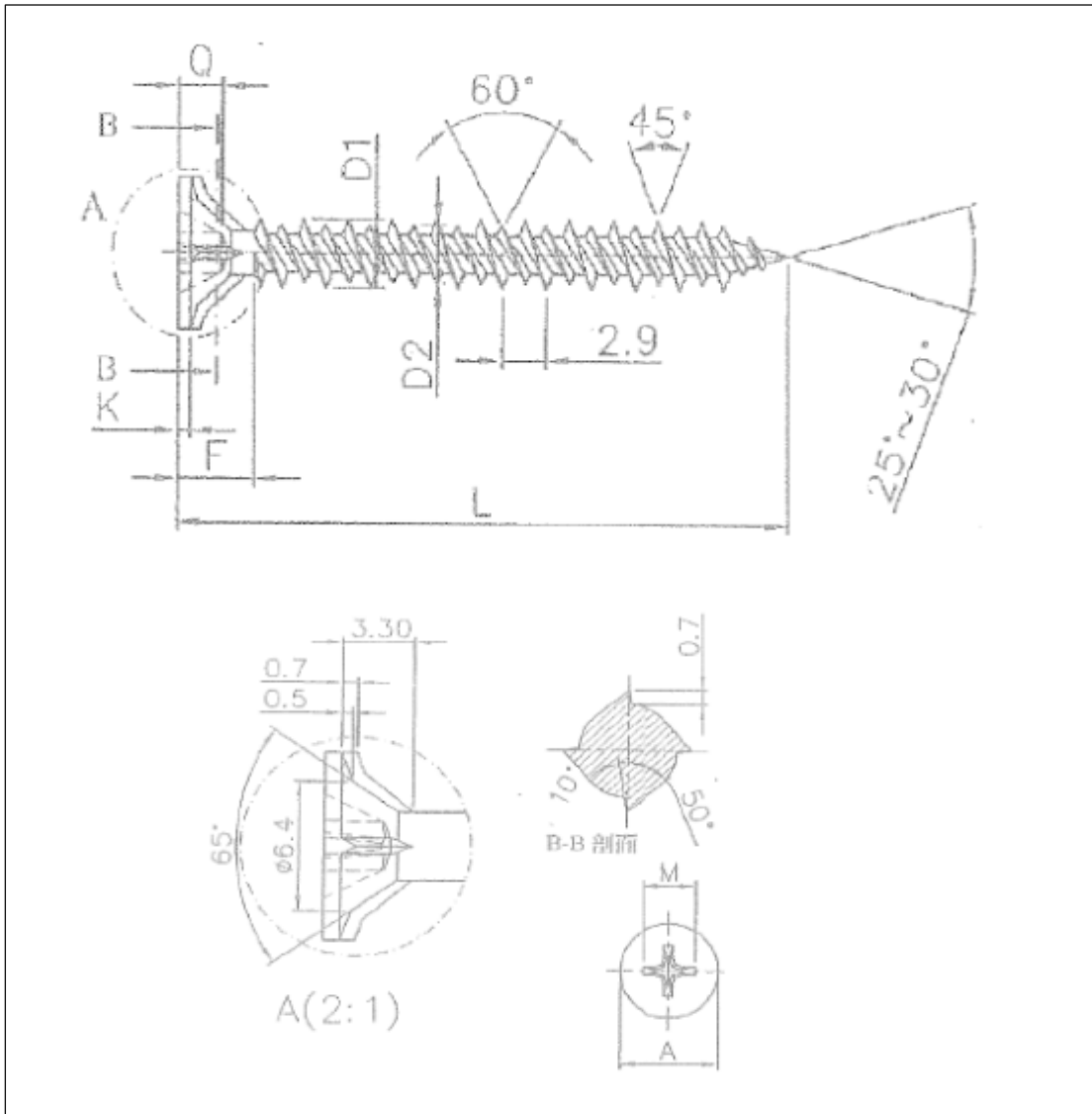
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ANNEX A1 : AQUAPANEL Maxi Screw SN

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



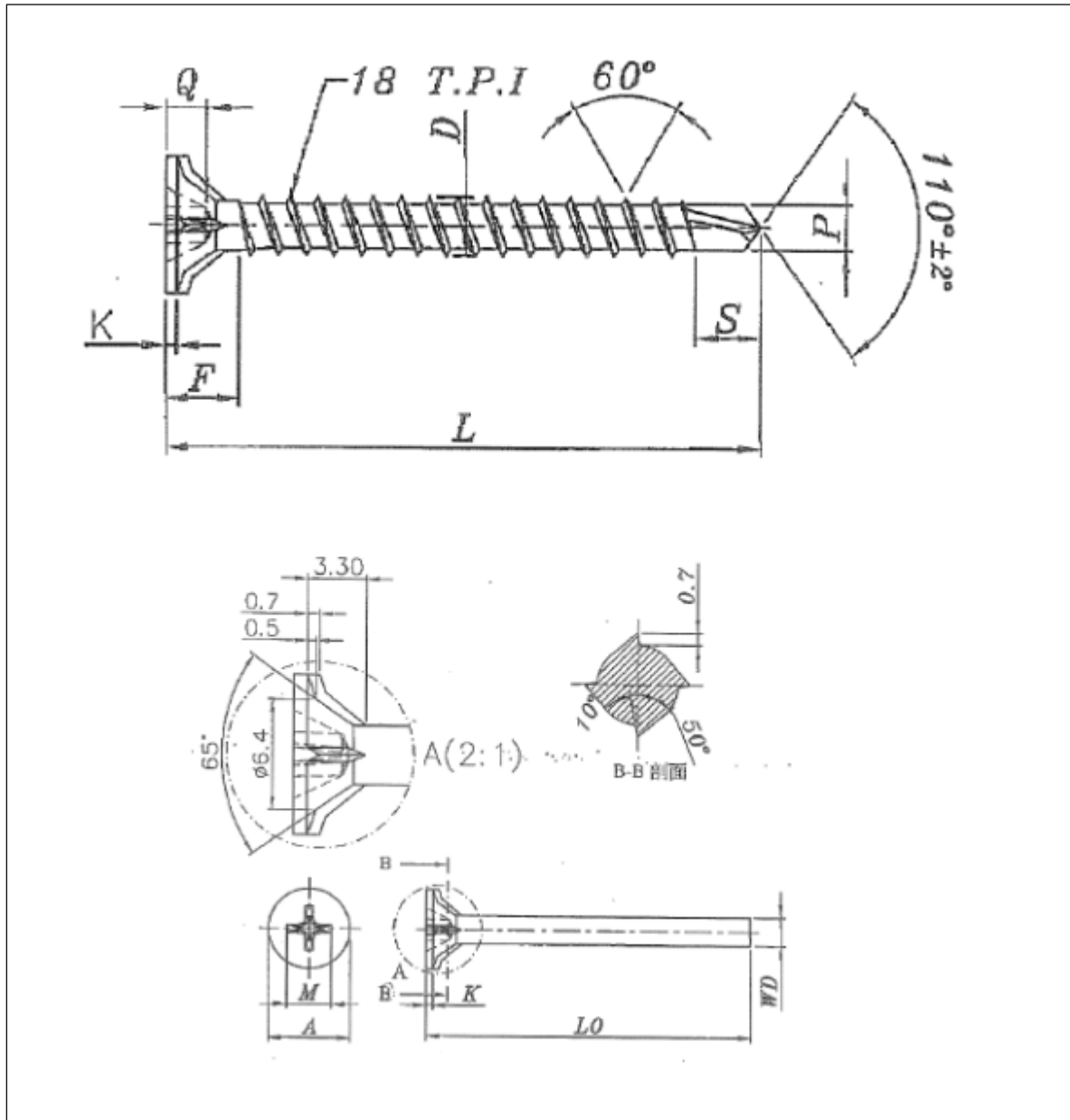
	SN 25	SN 39
Screw length [mm]	25	39

Material: C 22 (similar to Ck22 / Cm22)
 Material No.: SAE 1022 (similar to 1.1151 / 1.1149 acc. to EN 10083-2)

Dimensions in mm; without scale

ANNEX A2 : AQUAPANEL Maxi Screw SB

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



	SB 25	SB 39
Screw length [mm]	25	39

Material: C 22 (similar to Ck22 / Cm22)
 Material No.: SAE 1022 (similar to 1.1151 / 1.1149 acc. to EN 10083-2)

Dimensions in mm; without scale

ANNEX B1 : SPECIFICATION FOR USE

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

Specification of the intended use

Cement Bonded Boards subject to non-structural applications

d = 6 mm and d = 8 mm

- lining of interior components
- support board for interior areas
- suspended ceilings for interior areas
- floor construction element for interior areas

d = 8 mm (hydrophobic)

- lining of walls for outdoor application without direct weathering
- suspended ceilings for outdoor application without direct weathering

Use conditions

Cement bonded board

Category **B**
acc. to EN 12467:

Boards which are intended for applications where they may be subjected to heat, moisture and occasional frost, e.g. where they are either protected from or not subjected to severe weathering conditions.

Category **D**
acc. to EN 12467:

Boards for rigid underlayer applications.

Fasteners

- Fasteners intended for use in structure subject to dry, internal conditions:
(Galvanized steel or stainless steel)
- Structures subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition, if no particular aggressive conditions exist (stainless steel)

Note: Particular aggressive conditions are e.g. permanent, alternating immersion in seawater or the splash zone of seawater, chloride atmosphere of indoor swimming pools or atmosphere with extreme chemical pollution (e.g. in desulphurization plant or road tunnels where de-icing materials are used)

The fasteners according to Annex A can be used for external applications if the screw head is permanent sealed after the installation against moisture

ANNEX B2 : INSTALLATION

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

During transport and storage the cement bonded boards AQUAPANEL Cement Board 6 mm, AQUAPANEL Cement Board 8 mm and AQUAPANEL Cement Board 8 mm (hydrophobic) and the components manufactured by using these boards shall be protected against damaging and inadequate moisture, e.g. from precipitation or high building moisture (e.g. covering the boards or the components on all sides with foil to avoid standing water).

Damaged cement bonded boards or components manufactured by using these boards may neither be used nor installed.

If cement bonded boards are processed on site (on-site fabrication), the moisture of the timber substructure may not detrimentally increase until installing the boards (protection from precipitation or high building moisture).

As connecting devices of the cement bonded board to the substructure appropriate screws with adequate corrosion protection shall be used, see Annex A.

For use of the cement bonded board in direct exposure a suitable protection against weathering shall be added e.g. render system consisting of an undercoat plaster and finishing plaster coat that is not part of this assessment.

The cement bonded boards shall not be fixed under tension.

The maximum permitted distance between the fasteners is 220 mm for transverse installation and 250 mm for longitudinal installation.

The distance between the fasteners shall be at least 50 mm.

Expansion joints are placed at a minimum of 15 m.

For the installation of the cement bonded boards the information of the manufacturer (instructions for installation) shall be considered.

National regulations may be observed if the cement bonded boards are used for non load-bearing components in interior areas as partition walls or for the production of floor elements or as suspended ceilings.

ANNEX C : DIMENSIONS

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

Table C:

Length and width of the cement bonded boards AQUAPANEL Cement Board including the permissible deviations

Width	Length
898 mm \pm 3 mm	1197 mm \pm 3.6 mm
	1247 mm \pm 3.8 mm
	2397 mm \pm 5.0 mm
	2497 mm \pm 5.0 mm
1198 mm \pm 3.6 mm	897 mm \pm 3.0 mm
	2397 mm \pm 5.0 mm
	2497 mm \pm 5.0 mm



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