

The Backing of a World Leader

Lafarge is the world's largest producer of construction materials, including gypsum products, aggregates and cement. The preservation of natural resources and respect for the needs of people and the environment are fundamental to the organisation's business approach and philosophy.

GB Orderline

For placing orders, delivery enquiries and local stockists etc.

Tel: 0800 373636
Fax: 01275 377700
Email: orderline@lafarge-gypsum.lafarge.com

Ireland Orderline

For placing orders, delivery enquiries and local stockists etc.

Tel: +353 (0)1 6203114
Fax: +353 (0)1 6203117
Email: irelandorders@lafarge.com

Literatureline

For next day delivery of Lafarge literature.

Tel: 01275 377582
Fax: 01275 377402
Email: literatureline@lafarge-gypsum.lafarge.com

The Technical Training Centre

For all drywall training needs from basic introduction to advanced skills and development.

Tel: 01275 377581
Fax: 01275 377402
Email: training@lafarge-gypsum.lafarge.com

Technical Enquiryline

Technical advisory service.

Tel: 01275 377789
Fax: 01275 377456
Email: enquiryline@lafarge-gypsum.lafarge.com

GTEC Wasteline Direct™

Plasterboard waste management enquiries.

Tel: 01275 377579
Fax: 01275 774950
Email: gtecwasteline@lafarge.com



Certificate No. FM 13594



Certificate No. EMS 75024

Plasterboard, jointing and associated products made in the United Kingdom by Lafarge Plasterboard are manufactured in accordance with management systems certified to BS EN ISO 9001: 2000 (quality) and BS EN ISO 14001: 2004 (environment)



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PLASTERBOARD SOLUTIONS

GTEC® Aqua Board Internal Applications



bringing materials to *life*



CASE STUDY:

Our latest innovation in gypsum boards, "GTEC Aqua Board" has been installed at the Crossway Eco-House.

GTEC Aqua Board is being used in vulnerable wet areas such as the external unexposed car port soffit, as well as the bathrooms and wet room. The high performance gypsum board was developed as an alternative to cement particle boards for wet and high humidity applications.

GTEC Aqua Board offers superior water, mould and fire resistance, plus sound insulation and impact protection qualities. It is suitable for both internal and external environments, and can be left on site directly exposed to all weather conditions for up to 6 months.

GTEC Aqua Board the ideal tile backing system ...providing outstanding water resistance

GTEC Aqua Board is the UK's first gypsum board for use in high humidity and wet area applications.

“...it was very useful to have GTEC Aqua Board on-site so early in the project before the building was weather tight. It's incredible - very easy to use and I would definitely recommend it.”

**Richard Hawkes, Architect,
Crossway Eco-House Project, Kent**

Designed as an alternative to traditional cement particle boards, GTEC Aqua Board provides many benefits for areas of commercial and domestic use.

For areas of low to rather high exposure to humidity, such as bathrooms and wet rooms, GTEC Aqua Board is an ideal tile backing board. Not only can it be tiled, it can also be painted, once sealed, allowing greater flexibility in bathroom design without the worry of mould or fungus growth following a water leak.

For areas of high to extreme exposure to humidity, such as swimming pools and other commercial applications, GTEC Aqua Board not only provides the high levels of water, mould and fungus resistance, it also delivers high performance when it comes to fire, sound and impact resistance. With the right partition system, performances of over 60 minutes fire resistance and 60dB sound insulation can be achieved.

Providing exceptional water resistance, GTEC Aqua Board gets the job done with added benefits including:

- **Easy to handle - up to 30% lighter than cement particle boards**
- **Easy to cut - treat like normal plasterboard, score and snap (no power tools required)**
- **Easy to fix - no pre-drilling required**
- **Fully mould and fungus resistant**
- **BBA and European Standards certified**
- **Can be left directly exposed to all weather conditions once installed on a frame for upto 6 months**
- **Exceptional water resistance**
- **Superior fire, sound and impact performance**
- **Fully recyclable. Waste/offcuts collected in plasterboard skips or bags by 'GTEC Wasteline Direct'**

GTEC Wasteline Direct™





GTEC Aqua Board Applications

GTEC Aqua Board has proven its performance time and time again in a wide range of projects.

GTEC Aqua Board is fast becoming the board of choice when it comes to wet area applications for even the most demanding of projects. GTEC Aqua Board is ideal as a tile backing board within kitchen and bathroom applications, right through to the most severe, including swimming pools and health spas. GTEC Aqua Board has been exceptionally well received by the industry who derive real benefit from its ease of use and outstanding performance properties.

The table below indicates the range of applications where GTEC Aqua Board is suitable according to the level of exposure to humidity and water.

EXPOSURE TO HUMIDITY & WATER	APPLICATION
MEDIUM	Housing - Kitchens and toilets
RATHER HIGH	Housing - Bathrooms, garages and unheated cellars
HIGH	Housing - Bathroom with a Jacuzzi Public Buildings – Shower for collective use
SEVERE	Housing – Internal private swimming pool Public buildings – Swimming pools and health spas
OTHER	Buildings which are not weather tight

For high and severe applications areas, please contact Lafarge Technical Enquiryline for more details on 01275 377 789.

Used within commercial and private projects, GTEC Aqua Board continues to provide a professional system solution when used in conjunction with the associated products from the GTEC Aqua range, offering a simple, user friendly, cost efficient and high performance all-in-one solution.

In addition to useage within internal applications GTEC Aqua Board is also an ideal solution for external applications. For more information on GTEC Aqua Board External Applications please contact your Lafarge representative.





GTEC Aqua Board Performance

Accredited to a wide range of UK and European standards, GTEC Aqua Board provides outstanding levels of performance in line with the ever increasing technical and commercial challenges faced by the construction industry.

Topic	Description	12.5mm Performance	15mm Performance
General	Mass	10.8 Kg/m ² 1200mm x 850mm = 11kg 1200mm x 2400mm = 31kg 1200mm x 2700mm = 34.8kg	13.5 Kg/m ² 1200mm x 2400mm = 37kg 1200mm x 3000mm = 46kg
Mechanics	Flexural breaking load in Longitudinal direction	>500N	>600N
	Flexural breaking load in Transverse direction	>250N	>300N
	Pull out resistance, design value, including safety factor with hollow wall anchor and 60kg per linear metre of wall for Tiles 30kg/m ²	30kg	30kg
Fire	Fire resistance with single layer partition according to EN 1364-1	upto 60mins	upto 60mins
	Fire resistance with double layer partition according to EN 1364-1	upto 90mins	upto 120mins
	Reaction to fire	Euroclass A2- s1,d0 in accordance with EN 13501-1	
Thermal	Thermal conductivity λ_n in accordance with EN 12524	0.25 W/mK	0.25 W/mK
	Thermal resistance R	0.05 m ² K/W	0.06 m ² K/W
Permeability	Mean water vapour permeability	220 g/m ² /day	-
	Water vapour resistance μ factor in accordance with EN12572	11	-
Moisture Resistance	Moisture content	<1%	<1%
	Size variation at 20°C and 65% RH to 90% RH in accordance with BS EN 318 in Longitudinal direction	0.15mm/m	0.15mm/m
	Size variation at 20°C and 65% RH to 90% RH in accordance with BS EN 318 in Transverse direction	0.11mm/m	0.11mm/m
Mould Resistance	Mould resistance according to ASTM D 3273	No mould growth	

GTEC Aqua Board Installation

Installation instructions for **medium and rather high levels** of exposure to humidity and water.

1. Lafarge GTEC Studs & Tracks

Fix the GTEC Tracks, along the setting out line, at the floor and soffit. Fix to the floor and soffit at maximum 600mm centres, with suitable proprietary fixings. If applying the GTEC U Tracks direct to new concrete, which has not completely dried out, a damp proofing membrane should be used. Cut the GTEC C Studs 5 mm shorter than the floor to soffit height, allowing for floor variations. Insert the Lafarge GTEC C Studs into the GTEC U Tracks and twist into position. The perimeter Lafarge GTEC C Studs should be fixed at maximum 600 mm centres, with the webs flat against the abutting wall or column, with suitable proprietary fixings.

If a deflection tolerance is required at the head of the partition, the GTEC C Studs should be cut short by this deflection tolerance and the appropriate GTEC U Track used (see the Lafarge Drywall Manual).

The intermediate GTEC C Studs should all face in the same direction and should be positioned at maximum 600mm centres (or reduced stud centres if required). For single layer partitions, which are to be finished with tiling, the intermediate GTEC C Studs should be positioned at a maximum of 400mm centres (see the Lafarge Drywall manual).

2. Lafarge GTEC Aqua Board

Fix the GTEC Aqua Board to the wet area side of the Lafarge GTEC Framing. Cut the GTEC Aqua Board 5 mm to 8 mm shorter than the floor-to-ceiling height, butt firmly against the ceiling and fix with GTEC Aqua Screws to the framing at a maximum of 300 mm centres in the field of the board and at a maximum of 300 mm at the partition perimeter. Offset the GTEC boarding type on the opposite side by one stud spacing (600mm or 400mm).

To maximise the acoustic and fire performance of the system use a proprietary silicone based sealant and seal between the perimeters and GTEC Aqua Board at the vertical abutments and the head. The base should also be sealed with

a proprietary silicone based sealant. Alternatively, a continuous 6mm bead of GTEC Intumescent Acoustic Sealant can be applied to the back of the GTEC U Tracks and the perimeter GTEC C Studs and the base should be sealed with a proprietary silicone based sealant.

2.1 Joint Treatment to Surface of GTEC Aqua Board

Apply GTEC Aquamix compound to the tapered joint. Cut the GTEC Joint Tape to the required length, centre the GTEC Joint Tape over the GTEC Aqua Board joint and bed tape into the Aquamix compound. Apply GTEC Aquamix compound to the GTEC Aqua Board joint, covering the GTEC Joint Tape with approximately 1 mm of GTEC Aquamix compound. Strike off flush with the GTEC Aqua Board face and allow drying. Once fully dry, apply a second coat of GTEC Aquamix compound over the first coat and feather out 50 – 60mm wider than the first coat of GTEC Aquamix compound and allow drying. Once fully dry, apply a finish coat of GTEC Aquamix over the second coat and feather out 50 – 60mm wider than the second coat of GTEC Aquamix.

2.3 Treatment of External Vertical Corners (where a non tiled finish has been specified)

Cut the GTEC Corner 90° External (tape on bead) to the required length. Apply a 50mm wide band of GTEC Aquamix compound on each side of the external corner. Bed the GTEC Corner 90° External into the GTEC Aquamix compound. Once bedded, cover each side of the GTEC Corner 90° External with a 100mm band of GTEC Aquamix, feathered out onto the GTEC Aqua Board face, and allow drying. Once fully dry, apply a second coat of GTEC Aquamix compound over the first coat and feather out 50 – 60mm wider than the first coat of GTEC Aquamix compound and allow drying. Once fully dry, apply a finish coat of GTEC Aquamix over the second coat and feather out 50 – 60mm wider than the second coat of Lafarge GTEC Aquamix.

3. Lafarge GTEC Aqua Board Finishing

3.1 Tiling Finish

Ceramic and glazed tiles can be fixed directly onto the GTEC Aqua Board system. The tile adhesive should be waterproof and suitable for plasterboard substrates. Tiles with less than 5% water absorption are recommended.

3.2 Grouting

After the tile adhesive has been allowed to set, according to the adhesive manufacturer's recommendations, finish the tiles with a suitable waterproof tile grout and seal tiles if required.

3.3 Paint Finish

For non-tiled areas, where a paint finish is required, a suitable proprietary paint for that area can be applied directly to the GTEC Aqua Board surface.

3.4 Additional Detailing

Water tightness around frames

To ensure water tightness around door frames and/or any apertures, a proprietary silicone based sealant should be used.

Pipes passing through Partition

Pipes should be sleeved and a proprietary silicone based sealant should be used to ensure water tightness between the sleeve and pipe. Water tightness is also achieved between the Lafarge GTEC Aqua Board, tiling and sleeve, using a proprietary silicone based sealant.

Suspended washroom appliances

Suspended washroom appliances may be fixed to partitions using a suitable fixing and method (see the Lafarge Drywall Manual). A proprietary silicone based sealant may be required around any penetrations.

Baths and Showers

A proprietary silicone based sealant must be used at the junction of the shower base and/or the bath edges to the vertical walls. Follow the bath and/or shower manufacturer's recommendations for fixing requirements.

Installation instructions for high and severe levels of exposure to humidity and water.

1. Lafarge GTEC Studs & Tracks

See page 6

2. Lafarge GTEC Aqua Board

See page 6

3. Sealing The Base of Partitions or Linings in High and Severe Exposure Areas

Cut the GTEC Aquastrap reinforcement strip to the required length. Using a long haired roller apply a generous coat of GTEC Drywall Sealer to the bottom of the partition or lining approximately 100mm from the floor and a generous coat of GTEC Drywall Sealer to the floor, approximately 200mm. *Note:* The floor may require an adhesive primer. Refer to the primer manufacturer's recommendations for application.

Apply the length of GTEC Aquastrap reinforcement tape into the GTEC Drywall Sealer, folding along the joint approximately

50/50mm. The GTEC Aquastrap reinforcement strips are applied using a scraper or plasterer's trowel, being careful to avoid creases. When two lengths of GTEC Aquastrap meet, ensure they are overlapped by at least 50 mm. Allow drying for approximately 3 to 4 hours, and then apply a second generous coat of GTEC Drywall Sealer to cover the first.

3.1 Additional Application Required in Severe Exposure Areas Only

Apply two coats of GTEC Drywall Sealer to entire surface of GTEC Aqua Board. Allow drying of 3 to 4 hours of the first coat, and then apply the second coat.

4. GTEC Aqua Board Finishing

4.1 Tiling Finish

Ceramic & glazed tiles can be fixed directly onto the GTEC Aqua Board system. The tile adhesive should be waterproof and suitable for plasterboard substrates. Tiles with less than 5% water absorption are recommended.

4.2 Grouting

After the tile adhesive has been allowed to set, according to the adhesive manufacturer's recommendations, finish the tiles with a suitable waterproof tile grout and seal tiles if required.

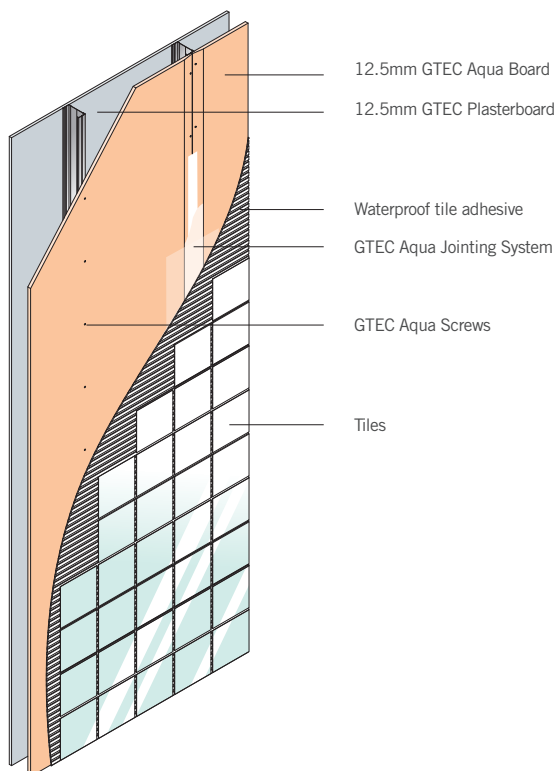
4.3 Paint finish

For non-tiled areas where a paint finish is required. A suitable paint for that area can be applied over GTEC Drywall Sealer in high and severe exposure areas.

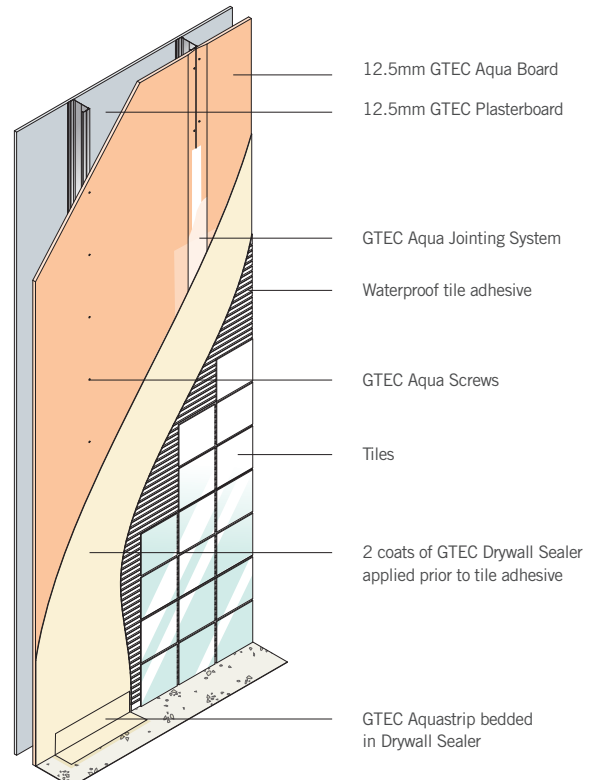
3.4 Additional Detailing

For additional detailing instructions please see Section 3.4 on page 6.

Medium to Rather High Exposure Area



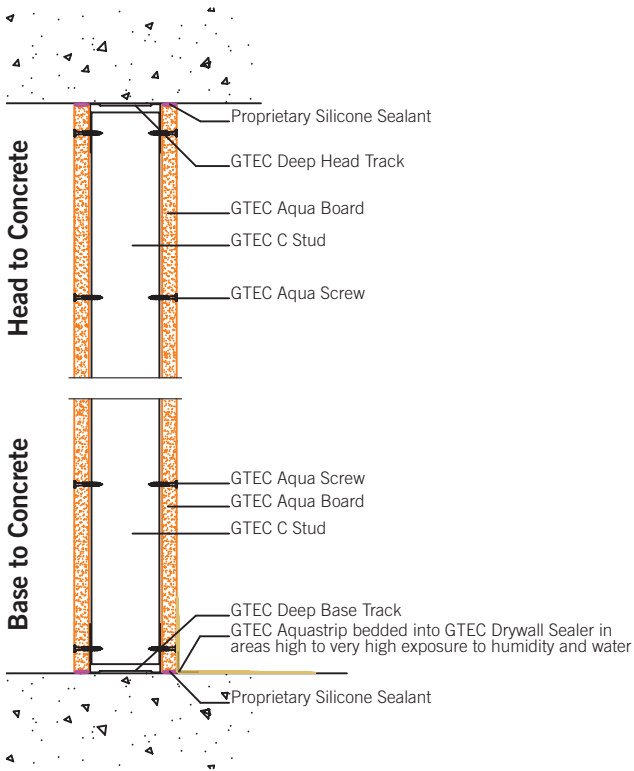
High and Severe Exposure Area



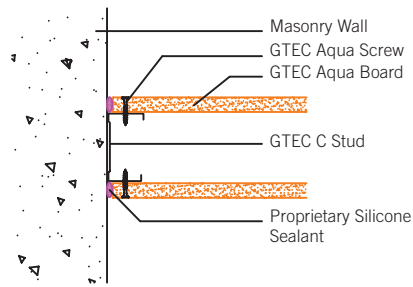
GTEC Aqua Board Construction Details

Partition Details

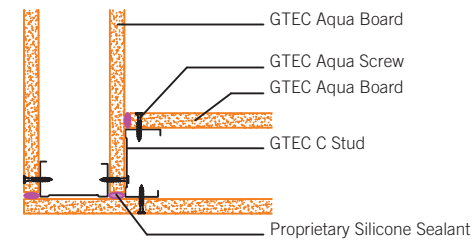
Vertical Cross-section



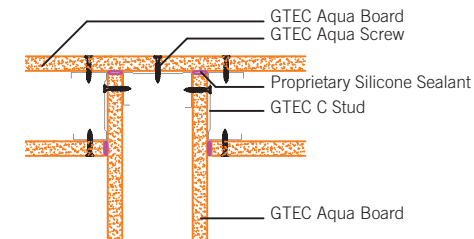
Junction to Masonry Wall



90 Degree Corner

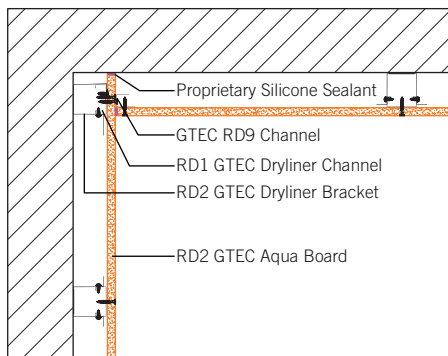


Acoustic Tee Junction

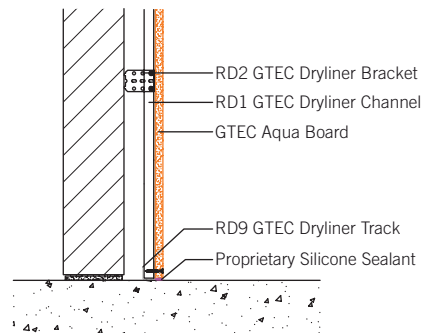


Lining Details

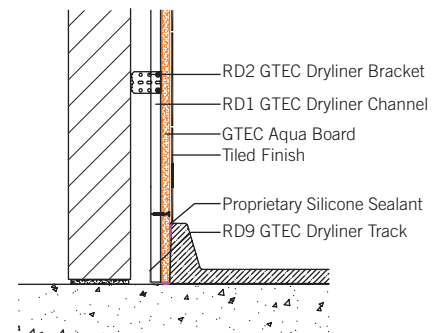
GTEC Dryliner Internal Corner



GTEC Dryliner Base



GTEC Dryliner Base to Shower Tray



GTEC Aqua Board System Performance

System Ref.	Plan Detail	Facing Side 1	Studs	Facing Side 2	Fire resistance (mins)	Sound Insulation (R _w dB)	Max height (m)	BS5234
Renovation Domestic (bathroom) Aq1		12.5mm GTEC Aqua Board 15mm GTEC Aqua Board	RD1 @600mm centres, RD2 @800mm centres RD9 @ head / base	To existing brickwork	30	Upto 49 No Glass Wool Upto 60 With 25mm Glass Wool	3	n/a
New Build Domestic (bathroom) RSP 006Aq		12.5mm GTEC Aqua Board	CS70/Rx @600mm Centres	12.5mm GTEC dB Board	60 With 50mm Rock MW	45 With 25mm Glass Wool	3.6	Heavy Duty
		15mm GTEC Aqua Board	CS70/Rx @600mm Centres	15mm GTEC Aqua Board	60 Without Rock MW	46 With 25mm Glass Wool	3.8	Severe Duty
Commercial (Internal) Swimming Pool RMP 001Aq		15mm GTEC Aqua Board	CS70/Rx @600mm Centres	15mm GTEC Aqua Board	60	45 With 25mm Glass Wool	3.8	Severe Duty (Both sides)



A Total System Solution

The GTEC Aqua Board system gives you everything you need to complete your project to the highest professional standards, with total peace of mind. The GTEC Aqua Board range of ancillary products includes:

GTEC Aqua Board comes in a variety of sizes to suit every need:

Thickness mm	Width mm	Length mm
12.5	1200	850
12.5	1200	2400
12.5	1200	2700
15	1200	2400
15	1200	3000

GTEC Aquamix








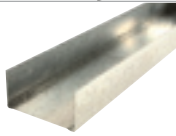

A water resistant ready-mixed joint cement. For use with GTEC Aqua system in all wet applications.

GTEC Aquastrip

A mesh strip used in the GTEC Aqua system to protect exposed drylining perimeters for severe wet applications.

GTEC Aqua Screws

GTEC Aqua High Thread screws for fixing to timber. GTEC Aqua Self Drilling & GTEC Aqua Self Tapping screws for fixing to metal.

Components	Lafarge Code	Sizes
GTEC Aqua Board 	183435 183437 183439 183441 183853	12.5 x 1200 x 850 12.5 x 1200 x 2400 12.5 x 1200 x 2700 15 x 1200 x 2400 15 x 1200 x 3000
GTEC Aquamix 	183600 183599	5kg 20kg
GTEC Aquastrip 	183777	50m
GTEC Aqua High Thread 	183773	41mm 6 Gauge
GTEC Aqua Self Tapping 	183772 183774	32mm 6 Gauge 41mm 6 Gauge
GTEC Aqua Self Drilling 	183771	32mm 6 Gauge
GTEC C Stud 	Various	Various
GTEC U Track 	Various	Various
GTEC Joint Tape 	183195	150m

GTEC Aqua Board Health & Safety

Lafarge are committed to the highest level of safety at all times. This commitment extends outside our own operations to all involved in the use of our products on site.

ACCREDITATIONS:

Sustainable™

Sustainability

GTEC Aqua Board boasts a range of sustainability credentials further supporting its selection as the performance board of choice on all projects. These include:

- Low life-cycle environmental impact
- Lower embodied carbon than cement fibre boards
- Recycled gypsum meets the quality criteria of BSI PAS109
 - Improved site health & safety through:
 - Reduced manual handling risks due to lighter boards
 - Use of power tools eliminated for cutting and pre-drilling
 - No production on site of potentially hazardous dust
 - Fully recyclable into new plasterboard through GTEC Wasteline Direct.

GTEC Wasteline Direct™

BBA - UK

Certificate No.
10/4725



CSTB - France

Avis Technique
9/08-867



VHT - Germany

Nr. Z-633-08-2/Pf



ITB - Poland

Confirmation No.
NK-03691/P/2009



Handling and storage

Lafarge GTEC Aqua Board can be left directly exposed to all weather conditions once installed on a frame for up to 6 months.

When manually handling gypsum boards, consideration of the correct manual handling technique to limit risk, according to the Manual Handling Operations Regulations 1992.

Packs should be moved using a fork lift truck or hydraulic trolley, care should be taken to ensure that the machine is safely capable of such movements and that the operator is fully trained and competent.

Pack size:

52 boards to the pack (12.5mm)
40 boards to the pack (15mm 2400mm)
32 boards to the pack (15mm 3000mm)
Length: 850mm, 2400mm, 2700mm and 3000mm
Width: 1200mm
Maximum height (pallet included): 900mm

GTEC Aqua Board is not a suitable product to be used as a platform or deck, it will not support body weight and therefore it is important that installers use an independent support mechanism.

Exposure controls/ Personal protection

Occupational Exposure Limits: Workplace Exposure Level (WEL)

Substance	Total inhalable	Total respirable
Gypsum	10 mg/m ³	4 mg/m ³
Limestone	10 mg/m ³	4 mg/m ³
Quartz	–	0.3 mg/m ³
Man Made Mineral Fibre	–	5 mg/m ³

Note: Based on 8 hour TWA period

Personal protection

Respiratory: Area should have adequate ventilation and/or dust extraction, if not a half face mask to EN 149 Class FFP1S should be used.

Eye: Safety goggles to BS EN 166 2B5 are recommended when dust is likely to occur.

Skin: Wear overalls and suitable clothing to avoid repeated skin contact.

Hands: To limit the effect wear protective gloves. A barrier cream can also be applied.

