Gboard

Build Natural

With Gboard at the forefront of its innovations, ASK is a regional leader in the gypsum industry, catering to the local and regional market with 100% Saudi-manufactured gypsum boards, and a production capacity that is expected to reach 50 million sqm by 2012.

We believe that a long-term partnership with consultants, contractors and end-consumers rests on a top quality product. This is why we make sure that our Gboard panels meet benchmark standards in Europe, the United States, and across the globe.

Today, as more and more partnerships and certifications endorse the excellence of our product, we cannot help but look into new ways for innovation and expansion.
State-of-the-art technology, production development, and recruitment of talent and expertise, are only some of the ways we are following to cater to an increasingly demanding market.

On behalf of our team, we invite you to discover firsthand the advantages of our products, and partner with us in chalking out a new standard in the industry.

Founder and Chief Executive Officer

Charles J. El Khoury

Company Profile

The Company

A regional leader.

Established in 2005 as a Lebanese-Saudi joint venture, ASK is a limited liability company registered in Saudi Arabia as per the laws in force. Specializing in the manufacture and trade of gypsum products for the Region, it has brought to the Kingdom more than 50 years of experience in the industry, and a new era of technological innovations and precision products.

ASK Gypsum Factory is the largest supplier of gypsum products in the Gulf. Its 75,000 sqm facility produces over 20 million sqm of gypsum boards per year, and is expected to reach 50 million sqm by 2012.

Gypsum: The next construction essential.

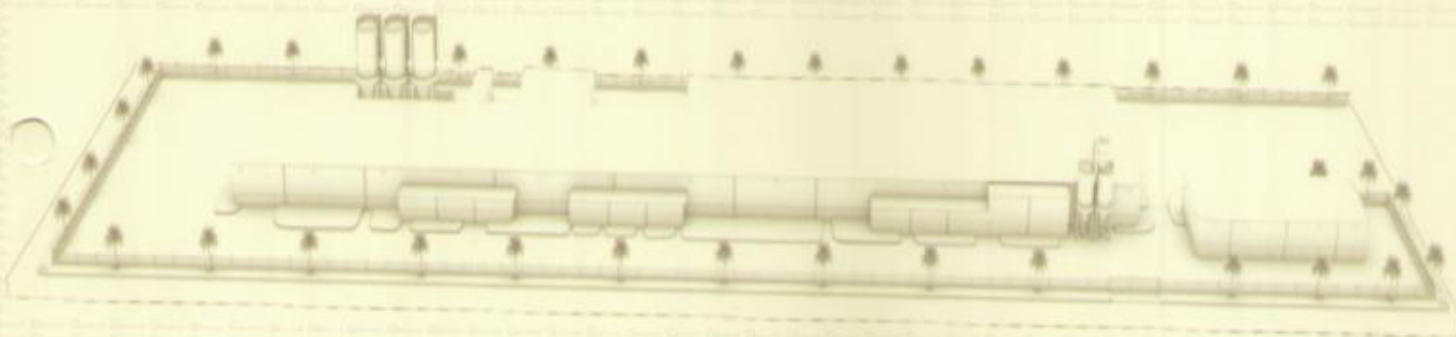
Gypsum has become an essential element for building interiors and lightweight construction solutions. Produced by ASK under the commercial names of Gboard (for boards) and Gulf Gypsum (for powder), gypsum is increasingly used to add strength to the interior walls of buildings, and has insulation qualities that enhance living and working conditions.

Gboard offers the full spectrum of gypsum boards, from standard to fire resistant and water resistant boards. To further improve these types, gboard inovated impact-resistant boards, used in schools, hospitals and public facilities to reinforce walls that are subject to impact.

International quality standards.

Gboard's leadership in the gypsum industry is a result of one thing: quality. Strict quality control applies from beginning to end, with a close monitoring of the raw material received from the factory's own quarries, to ensure manufacturing embarks with the required high-level components. Precision measurement equipment is then used to maintain optimal tolerance levels for the production line.

CONTACTS



ASK Gypsum Factory Ltd.

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Tel : 00966 2 613 0000
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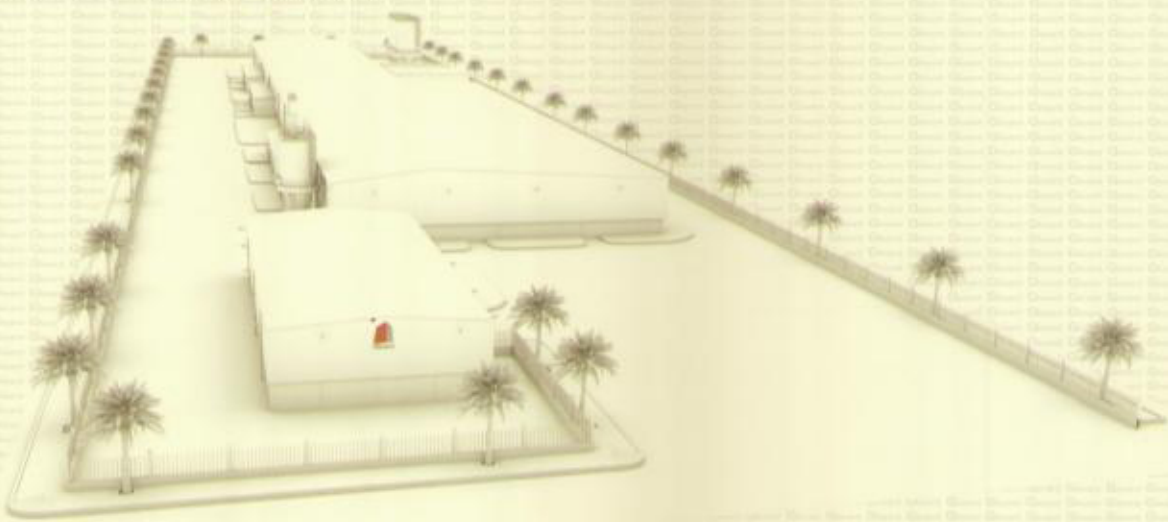
THE PRODUCT

UL certification

The UL Mark is the most recognized, accepted and trusted symbols in the world.
It is a registered certification mark of Underwriters Laboratories Inc. (UL), an independent product safety testing and certification organization.
For the sake of understanding of the UL certification, it is worth highlighting the difference between a 'Certificate' and a 'test report' – UL certificates are issued when a product qualifies and meets all the requirements and safety norms set forth by the Underwriters laboratories with regards to safety. Whereas test reports are a temporary phenomenon that declares a particular lot or a batch of the product produced at a given time to be test approved, thus test reports are valid only for that particular batch. That is what sets Gboard apart from rest of its compatriots, being a genuine UL tested and Certified product carrying UL mark.



White gypsum. Green Company.

In a company that believes in natural construction products, Gboard is produced in the "greenest" ways possible. Raw gypsum is extracted directly from the factory's quarries, making the starting material as pure as possible, and the final product 99.9% natural.
With "build natural" as its motto, Gboard applies the most eco-friendly methods, such as dust minimization, waste diminution, and conservation of energy and water. This optimized utilization of natural resources, combined with cutting-edge technologies, has helped Gboard remain ahead of competition as a Company that continuously develops its products and provides benchmark quality at effective value.

Beyond excellence.

Meeting clients' expectations is easy. Exceeding them is what Gboard prides with. By offering exceptional service, innovative solutions, and quality products at the best value, it has become a reference in reliability and economy, and an industry player with a well-earned market share.

Gboard - R

In compliance with International Standards

Gboard - R: Is a trade mark of Gulf Gypsum Company, it's a regular gypsum wallboard a preferred product in the industry due to its consistently high quality standards.

Basic Uses: As a covering material for all types of walls and ceilings in both new construction or renovated / remodelled buildings and spaces.

Application: As per requirements, wallboard is designed for direct attachment by screws, nails, adhesives or metal framing depending on the mounted surface. It could be used as a single layer as well as a double or multi-layered wall systems.

Recommendation: The relative thickness of +12.5 mm is highly recommended for single-layer application in all kind of residential construction and spaces.

9.5mm thickness, is a lightweight gypsum panel, basically used on ceilings, or in double-layered wall systems over existing framing for remodelling projects.

6mm to 7.5 mm thickness low cost and extremely light weight board recommended to be used as a base layer, and also over old / damaged ceiling or walls. Also it's an ideal product for making curves and bent shapes surfaces.

Product Data:

Standard dimensions: L X W / mm

	1600	2000	2400	2500	2800	3000
1200	○	●	●	●	●	●

Thickness: in mm

Any	9.5	12.5	15	16	18	21
▲	●	●	●	○	●	●

Edges:

	Square	Tapered	Tapered with round edge	Other
All Sizes	●	●	○	▲

Legend:

- ● Standard sizes.
- ○ Custom size available on request.
- ▲ Custom tailored boards are available on demand!

99.9 % Natural Product

Build Natural

Gboard - W

In compliance with International Standards

Gboard - W: Is a trade mark of Gulf Gypsum Company, it's a Moisture and Water Resistant gypsum wallboard suitable for use in internal wet and high humidity areas.

Basic Uses: As a covering material for all types of walls and ceilings in both new construction and or renovated / remodelled wet and humid spaces.

Application: As per requirements, wallboard is designed for direct attachment by screws, nails, adhesives or metal framing depending on the mounted surface. It could be used as a single layer as well as a double or multi-layered wall systems.

Recommendation: The relative thickness of +12.5 mm is highly recommended for single-layer application in all kind of residential construction and spaces.

9.5mm thickness, is a lightweight gypsum panel, basically used on ceilings, or in double-layered wall systems over existing framing for remodelling projects.

Lesser thicknesses are a low cost and extremely light weight board recommended to be used as a base layer, and also over old / damaged ceiling or walls. Also it's an ideal product for making curves and bent shapes surfaces.

Product Data:

Standard dimensions: L X W / mm

	1600	2000	2400	2500	2800	3000
1200	○	●	●	●	●	●

Thickness: in mm

Any	9.5	12.5	15	16	18	21
▲	●	●	●	○	●	●

Edges:

	Square	Tapered	Tapered with round edge	Other
All Sizes	●	●	○	▲

Legend:

- ● Standard sizes.
- ○ Custom sizes.
- ▲ Custom tailored boards are available on demand!

99.9 % Natural Product

Build Natural

Gboard - F

In compliance with International Standards

Gboard - F: Is a trade mark of Gulf Gypsum Company, a superior Fire Resistant / Retardant gypsum wallboard suitable for use internally where superior fire resistance lining applications and characteristics is essential.

Basic Uses: As a covering material for all types of walls and ceilings in special buildings and fire rated spaces like labs, hospitals, banks, and governmental sectors.

Application: As per requirements, wallboard is designed for direct attachment by screws, nails, adhesives or metal framing depending on the mounted surface. It could be used as a single layer as well as a double or multi-layered wall systems.

Recommendation: The relative thickness of +12.5 mm is highly recommended for single-layer application in all kind of residential construction and spaces.

9.5mm thickness, is a lightweight gypsum panel, basically used on ceilings, or in double-layered wall systems over existing framing for remodelling projects.

6mm to 7.5 mm thickness low cost and extremely light weight board recommended to be used as a base layer, and also over old / damaged ceiling or walls. Also it's an ideal product for making curves and bent shapes surfaces.

Product Data:

Standard dimensions: L X W / mm

	1600	2000	2400	2500	2800	3000
1200	○	●	●	●	●	●

Thickness: in mm

Any	9.5	12.5	15	16	18	21
▲	●	●	●	○	●	●

Edges:

	Square	Tapered	Tapered with round edge	Other
All Sizes	●	●	○	▲

Legend:

- ● Standard sizes.
- ○ Custom sizes.
- ▲ Custom tailored boards are available on demand!

99.9 % Natural Product

Build Natural

Gboard - WF

In Compliance with International Standards

Gboard - WF: Is a trade mark of Gulf Gypsum Company, a combined mixture of Water and Fire Resistant / Retardant gypsum wallboard offering superior quality for such a lining applications where likely demands are needed.

Basic Uses: As a covering material for all types of walls and ceilings in special buildings with water & fire rated spaces specs are highly required.

Application: As per requirements, wallboard is designed for direct attachment by screws, nails, adhesives or metal framing depending on the mounted surface. It could be used as a single layer as well as a double or multi-layered wall systems.

Recommendation: The relative thickness of +12.5 mm is highly recommended for single-layer application in all kind of residential construction and spaces.

9.5mm thickness, is a lightweight gypsum panel, basically used on ceilings, or in double-layered wall systems over existing framing for remodelling projects.

6mm to 7.5 mm thickness low cost and extremely light weight board recommended to be used as a base layer, and also over old / damaged ceiling or walls. Also it's an ideal product for making curves and bent shapes surfaces.

Product Data:

Standard dimensions: L X W / mm

	1600	2000	2400	2500	2800	3000
1200	○	●	●	●	●	●

Thickness: in mm

Any	9.5	12.5	15	16	18	21
▲	●	●	●	○	●	●

Edges:

	Square	Tapered	Tapered with round edge	Other
All Sizes	●	●	○	▲

Legend:

- ● Standard sizes.
- ○ Custom sizes.
- ▲ Custom tailored boards are available on demand!

99.9 % Natural Product

Build Natural

Gboard

Build Natural

Warranty

Dedicated to customer service and quality manufacturing, Gboard guarantees its products will be free of defects in materials and complies with international standards. Gboard will replace any product that fails to conform as promised.

Gboard
Patrick Pearson
QC Department Head

Limitation of Liability: Gboard's entire liability with respect to this product shall be limited to the price of the product. In no event shall Gboard, its agents or employees, be liable for direct, indirect special, consequential or incidental damages arising out of the use of, or inability to use this product, even if Gboard has been advised of the possibility of such damages. Gboard is a registered trademark of ASK Gypsum Factory.

Gboard

Build Natural

Certificate of Quality Commitment

This certifies that Gboard gypsum boards, manufactured by ASK Gypsum Factory , are subject to the industry's highest standards of quality at every level of production. From raw materials to the finished product, all components of each manufacturing lot are fully traceable and produced in a controlled environment.

ASK Gypsum Factory guarantees that its product is 99.9% natural product, made from natural gypsum rocks, free of any synthetic gypsum and have zero Volatile Organic Content.

The company certifies that manufactured gypsum boards are in compliance with International Standards.

Gboard
Patrick Pearson
QC Department Head

FLEXURAL STRENGTH OF REGULAR GYPSUM WALLBOARD TEST REPORT

FUGRO – SUHAI
حيمي - فيـزرو

Client	Gboard (ASK GYPSUM FACTORY LTD.)	**Report Date**	14 June 2010
Project	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Job No.**	SA10-9585
Material Description	Gypsum Wallboard	**Lab No.**	10633
Test Method	ASTM C-473-07	**Sample Received by FSL**	25 May 2010
Product Description	Regular Gypsum Wallboard	**Sampled by**	ASK GYPSUM

FSL has performed standard testing on samples of gypsum wallboard to determine the flexural strength. Th testing was carried out by supporting the specimen near the ends and applying a transverse load midwa between the supports at a uniform rate. The test results and pertinent information are as follows:

1. DIMENSION OF FULL-SIZE GYPSUM WALLBOARD		
Specified Dimensions (mm) (Nominal)	**Measured Dimensions (mm) (Average)**	**Permissible Tolerances (mm) (ASTM C-1396 Requirements)**
Length : 2400	2400	-
Width : 1200	1200	**- 3**
Thickness : 12.5	12.6	**± 0.4**

2. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)		
(Bearing Edges Parallel to Panel Length) **Test Specimens**	**Breaking Load (N)**	**ASTM C-1396-06 Specification Requirements**
S-1	480	
S-1	530	
S-3	490	
S-4	540	
Average Value	**510**	**489 (Minimum)**

3. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)		
(Bearing Edges Perpendicular to Panel Length) **Test Specimens**	**Breaking Load (N)**	**ASTM C-1396-06 Specification Requirements**
S-1	250	
S-1	220	
S-3	200	
S-4	210	
Average Value	**220**	**178 (Minimum)**
Note: ASTM C-1396 "Standard Specification for Gypsum Wallboard"		

Remarks: The test results indicated **conformance** to the ASTM C-1396-06 specification requirement for the flexura strength.

Fugro-Suhaimi
Material Division
(Western Prov. Lab. 15)

FUGRO-SUHAIMI LTD

Certificate of Compliance

Certificate Number 20110114 - R26837
Report Reference R26837 2010 December 29
Issue Date 2011 January 14

Underwriters Laboratories Inc.®

Issued to: ASK GYPSUM FACTORY

LIGHT INDUSTRIAL AREA, PO BOX NO-31381
YANBU AL SANAIYAH, YANBU, 51000 SAUDI ARABIA

This is to certify that representative samples of

Gypsum Board
15.9 mm (5/8 in.) thick, 1200 mm (47-3/16 in.) wide, Type C36 for use in Design No. U399. This material is available in metric width

Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: This category covers gypsum board investigated for use in fire-resistance designs as detailed in Fire Resistance Ratings - ANSI/UL 263 (BXUV).

Additional Information: See UL On-Line Certification Directory at www.UL.com for additional Information

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle: (UL) with the word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product

William R. Carney,
Director of the North American Certification Program,
Underwriters Laboratories Inc.

iBMB MPA TU BRAUNSCHWEIG

Materialprüfanstalt f. d. Bauwesen MPA BS 1 Braunschweig

Annex 1: Boardtype 12,5 GKB regular

Client: **Gborad**

Boardtype: **12.5**
Nominal size: 2000 x 1200 x 12.5 mm³ R/G Regular GKB A Board tapered boarder
End-face marking: **G Board 2000x1200x12,5** **www.gboard-sa.com**

Document No: **1433/956/10**
Checker: M.Weber
Date of sampling : -
Test material received: 09.09.10

dimensions in as-required: 13-09-2010

board number:	length 1 [mm]	length 2 [mm]	length 3 [mm]	length average value [mm]	width 1 [mm]	width 2 [mm]	width 3 [mm]	width average value [mm]	thickness 1 [mm]	thickness 2 [mm]	thickness 3 [mm]	thickness 4 [mm]	thickness 5 [mm]	thickness 6 [mm]	thickness 7 [mm]	thickness 8 [mm]	thickness 9 [mm]	thickness 10 [mm]	thickness 11 [mm]	thickness 12 [mm]	thickness average value [mm]
1	2000	2001	2000	**2000**	1198	1198	1198	**1198**	12,4	12,4	12,7	12,5	12,5	12,6	12,4	12,5	12,3	12,2	12,6	12,2	**12,4**
2	2001	2001	2001	**2001**	1198	1198	1199	**1198**	12,6	12,7	12,5	12,5	12,6	12,6	12,7	12,7	12,7	12,4	12,9	12,8	**12,6**
3	2001	2001	2001	**2001**	1199	1199	1199	**1199**	12,8	12,9	12,6	12,4	12,6	12,7	12,6	12,7	12,7	13,0	12,9	12,8	**12,7**
average value:				**2001**				**1198**													**12,6**

squareness and taper profile: 13-09-2010

board number:	squareness Δ_1 [mm]	squareness Δ_2 [mm]	squareness R_w [mm/m]	taper width 1 [mm]	taper width 2 [mm]	taper width 3 [mm]	taper width 4 [mm]	taper width average value [mm]	taper depth 1 [mm]	taper depth 2 [mm]	taper depth 3 [mm]	taper depth 4 [mm]	taper depth average value [mm]
1	2	1	1,3	43	43	43	42	**43**	1,47	1,54	1,20	1,30	1,38
2	2	3	2,1	45	44	45	45	**45**	1,25	1,70	1,46	1,00	1,35
3	2	1	1,3	44	43	44	43	**44**	1,44	1,33	1,43	1,44	1,41
average value:			1,5					**44**					1,38

test equipment:

measuring tape: Tajima HiLock-16 (3000 mm)
slide gauge: 300 mm (MPA-024)
taper profile counter: Mahr Digital Meßuhr 1075 (MPA-055)
scales: Sartorius (LP 34000 P, Inv.-Nr.: 04011/ 035)
Sartorius (LC 2201 S, Inv -Nr.: 7416)
climatic cabinet: Halle I, Raum 006 (Can-Bus:DL 006)
Cobb-processor : PFT (von Fa. KNAUF)

weight per unit area, density, collapse load, deflection & modulus of elasticity:

test material number:	length [mm]	width [mm]	weight air-dry [g]	weight dry 40° C [g]	weight per unit area [kg/m²]	density [kg/m3]	effective span [kg/m3]	collapse load FU [N]	deflection s_{max} [mm]	modulus of elasticity [N/mm²]	test material number & direction of testing
1 L	400	300	1199,0	1194,7	10,0	803	350	648,7	12,38	2635	1 front view
1 T	401	301	1213,9	1209,8	10,0	808	350	263,1	13,30	2384	1 back view
2 L	400	301	1137,3	1133,1	9,4	730	350	669,4	11,37	2693	2 front view
2 T	400	300	1130,0	1125,8	9,4	727	350	255,3	17,56	2089	2 back view
3 L	400	301	1109,0	1105,3	9,2	723	350	657,4	12,98	2388	3 front view
3 T	400	299	1091,6	1087,9	9,1	716	350	254,2	16,89	1773	3 back view
average value:											

water absorption:

test material number:	test period from time	test period to time	length [mm]	width [mm]	thickness [mm]	weight air-dry [g]	weight climate 23/50 [g]	weight wet after 2 hours [g]	water absorption [g]	water absorption [weight %]
1 L	07:27	09:27	123	125	12,4	156,5	156,6	158,6	2	1,28
1 T	09:30	11:30	124	125	12,6	158,8	158,9	160,4	1,5	0,94
2 L	11:32	13:32	124	124	12,6	143,6	143,8	145,4	1,6	1,11
2 T	13:34	15:34	126	126	12,6	151,2	151,4	153,4	2	1,32
3 L	07:22	09:22	125	124	12,8	144,5	144,6	146,3	1,7	1,18
3 T	09:26	11:26	125	125	12,6	144,3	144,6	146,0	1,4	0,97
average value:										

summary of test results

board number:	dimension length [mm]	dimension width [mm]	dimension thickness [mm]	squareness R_w [mm/m]	taper profile width [mm]	taper profile depth [mm]	weight per unit area [kg/m²]	density [kg/m³]	collapse load in longitudinal direction (L) [N]	modulus of elasticity in longitudinal direction (L) [N/mm²]	collapse load in transverse direction (T) [N]	modulus of elasticity in transverse direction (T) [N/mm²]	water absorption front view [weight %]	water absorption back view [weight %]
1	2001	1198	12,4	1,25	42,8	1,38	10,0	806	648,70	2635	263,10	2384	1,28	0,94
2	2000	1198	12,9	2,09	44,8	1,35	9,4	729	669,40	2693	255,30	2089	1,11	1,32
3	2000	1199	12,7	1,25	43,5	1,41	9,2	720	657,40	2388	254,20	1773	1,18	0,97
average value:	2000	1198	12.7	1,53	43,7	1,38	9,5	752	-----	-----	-----	-----	1,19	1,08
DIN EN 520 requirements	1995 to 2000	1196 to 1200	± 0,5 mm	3,0	40 to 80	0,6 to 2,5	----	≥ 800	≥ 515	--	≥ 210	--	water absorption class H1	
meet:	yes	yes	yes	yes	yes	yes	-----	yes	yes	-----	yes	-----	yes	

1/2

iBMB MPA TU BRAUNSCHWEIG

Materialprüfanstalt f. d. Bauwesen MPA BS 1 Braunschweig

Annex 3: Boardtype 12,5 GKB Fire Retardant

Client: Gboard

Boardtype: 12.5
Nominal size: 2000 x 1200 x 12.5 mm³ FR Fire Retardant GK F tapered boarder
End-face marking: no labeling

Document No: 1433/956/10
Checker: M.Weber
Date of sampling : -
Test material received: 09.09.10

dimensions in as-required: 13.09.2010

board number:	length				width				thickness													
	1	2	3	average value	1	2	3	average value	1	2	3	4	5	6	7	8	9	10	11	12	average value
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
1	2000	2000	2000	2000	1198	1198	1197	1198	12,6	12,5	12,4	12,5	12,5	12,6	12,5	12,3	12,4	12,4	12,5	12,4	12,5
2	2001	2000	2001	2001	1197	1198	1199	1198	12,2	12,6	12,4	12,4	12,3	12,5	12,5	12,1	12,4	12,2	12,4	12,5	12,4
3	2000	2001	2000	2000	1198	1197	1198	1198	12,2	12,4	12,2	12,3	12,2	12,3	12,6	12,7	12,4	12,5	12,5	12,6	12,4
average value:				2000				1198													12,4

squareness and taper profile: 13.09.2010

board number:	squareness			taper width					taper depth				
	Δ_1	Δ_2	R_w	1	2	3	4	average value	1	2	3	4	average value
	[mm]	[mm]	[mm/m]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
1	2	2	1,7	41	43	40	40	41	0,38	0,13	0,98	0,87	0,59
2	2	1	1,3	41	43	40	40	41	0,56	0,11	0,03	0,23	0,23
3	2	1	1,3	41	43	43	43	43	0,81	0,55	0,08	0,22	0,42
average value:			1,4					42					0,41

test equipment:

measuring tape: Tajima HiLock-16 (3000 mm)
slide gauge: 300 mm (MPA-024)
taper profile counter: Mahr Digital Meßuhr 1075 (MPA-055)
scales: Sartorius (LP 34000 P, Inv.-Nr.: 04011/ 035)
Sartorius (LC 2201 S, Inv.-Nr.: 7416)
climatic cabinet: Halle I, Raum 006 (Can-Bus DL 006)
Cobb-processor: PFT (von Fa. KNAUF)

weight per unit area, density, collapse load, deflection & modulus of elasticity:

test material number	length	width	weight air-dry	weight dry 40° C	weight per unit area	density	effective span	collapse load FU	deflection s_{max}	modulus of elasticity	test material number & direction of testing
	[mm]	[mm]	[g]	[g]	[kg/m²]	[kg/m3]	[kg/m3]	[N]	[mm]	[N/mm²]	
1 L	401	300	1273,7	1269,2	10,6	844	350	657,2	11,81	3201	1 front view
1 T	400	300	1241,6	1237,4	10,3	825	350	252,1	16,51	2404	1 back view
2 L	400	300	1262,9	1257,0	10,5	845	350	625,5	11,35	3086	2 front view
2 T	399	300	1238,4	1233,4	10,3	831	350	228,3	3,80	2469	2 back view
3 L	400	301	1219,0	1213,5	10,1	813	350	646,3	11,63	2780	3 front view
3 T	400	300	1223,3	1218,3	10,2	819	350	249,3	11,67	2287	3 back view
average value:											

water absorption:

test material number	test period from	test period to	length	width	thickness	weight air-dry	weight climate 23/50	weight wet after 2 hours	water absorption	water absorption
	time	time	[mm]	[mm]	[mm]	[g]	[g]	[g]	[g]	[weight %]
1 L	11:27	13:27	125	124	12,5	163,6	163,8	165,8	2,0	1,22
1 T	13:30	15:30	125	123	12,5	164,3	164,5	166,5	2,0	1,22
2 L	07:27	09:27	124	124	12,5	160,2	160,4	162,7	2,3	1,43
2 T	09:33	11:33	125	124	12,6	164,2	164,3	166,4	2,1	1,28
3 L	11:35	13:35	125	124	12,5	157,9	158,3	161,0	2,7	1,71
3 T	13:38	15:38	127	125	12,3	159,6	159,9	161,8	1,9	1,19
average value:										

summary of test results

board number:	dimension			squareness	taper profile		weight per unit area	density	collapse load	modulus of elasticity	collapse load	modulus of elasticity	water absorption	
	length	width	thickness	R_w	width	depth			in longitudinal direction (L)	in longitudinal direction (L)	in transverse direction (T)	in transverse direction (T)	front view	back view
	[mm]	[mm]	[mm]	[mm/m]	[mm]	[mm]	[kg/m²]	[kg/m³]	[N]	[N/mm²]	[N]	[N/mm²]	[weight %]	[weight %]
1	2000	1198	12,5	1,67	41,0	0,59	10,5	835	657,20	3201	252,10	2404	1,22	1,22
2	2000	1197	12,4	1,25	41,0	0,23	10,4	838	625,50	3086	228,30	2469	1,43	1,28
3	2001	1198	12,4	1,25	42,5	0,42	10,2	816	646,30	2780	249,30	2287	1,71	1,19
average value:	2000	1198	12,4	1,39	41,5	0,41	10,3	830	-----	-----	-----	-----	1,45	1,23
DIN EN 520 requirements	1995 to 2000	1196 to 1200	± 0,5 mm	3,0	40 bis 80	0,6 bis 2,5	keine	≥ 600	≥ 515	--	≥ 210	--	water absorption class H1	
meet:	yes	yes	yes	yes	yes	yes	-----	yes	yes	-----	yes	-----	yes	

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Annex 4: Boardtype 12,5 GKB Fire Retardant

Client: **Gboard**

Boardtype: **12.5**
Nominal size: 2000 x 1200 x 12.5 mm³ FR Fire Retardant GK F tapered boarder
End-face marking: no labeling

Document No: **1433/956/10**
Checker: M.Weber
Date of sampling : -
Test material received: 09.09.10

dimensions in as-required: 13.09.2010

board number	length 1 [mm]	length 2 [mm]	length 3 [mm]	length average value [mm]	width 1 [mm]	width 2 [mm]	width 3 [mm]	width average value [mm]	thickness 1 [mm]	thickness 2 [mm]	thickness 3 [mm]	thickness 4 [mm]	thickness 5 [mm]	thickness 6 [mm]	thickness 7 [mm]	thickness 8 [mm]	thickness 9 [mm]	thickness 10 [mm]	thickness 11 [mm]	thickness 12 [mm]	thickness average value [mm]
1	2000	2000	2000	**2000**	1198	1198	1197	**1198**	12,6	12,5	12,4	12,5	12,5	12,6	12,5	12,3	12,4	12,4	12,5	12,4	**12,5**
2	2001	2000	2001	**2001**	1197	1198	1199	**1198**	12,2	12,6	12,4	12,4	12,3	12,5	12,5	12,1	12,4	12,2	12,4	12,5	**12,4**
3	2000	2001	2000	**2000**	1198	1197	1198	**1198**	12,2	12,4	12,2	12,3	12,2	12,3	12,6	12,7	12,4	12,5	12,5	12,6	**12,4**
average value:				**2000**				**1198**													**12,4**

squareness and taper profile: 13.09.2010

board number	squareness Δ_1 [mm]	squareness Δ_2 [mm]	squareness R_w [mm/m]	taper width 1 [mm]	taper width 2 [mm]	taper width 3 [mm]	taper width 4 [mm]	taper width average value [mm]	taper depth 1 [mm]	taper depth 2 [mm]	taper depth 3 [mm]	taper depth 4 [mm]	taper depth average value [mm]
1	2	2	1,7	41	43	40	40	**41**	0,38	0,13	0,98	0,87	0,59
2	2	1	1,3	41	43	40	40	**41**	0,56	0,11	0,03	0,23	0,23
3	2	1	1,3	41	43	43	43	**43**	0,81	0,55	0,08	0,22	0,42
average value:			1,4					**42**					0,41

test equipment:

measuring tape: Tajima HiLock-16 (3000 mm)
slide gauge: 300 mm (MPA-024)
taper profile counter: Mahr Digital Meßuhr 1075 (MPA-055)
scales: Sartorius (LP 34000 P, Inv.-Nr.: 04011/035)
Sartorius (LC 2201 S, Inv.-Nr.: 7416)
climatic cabinet: Halle I, Raum 008 (Can-Bus:DL 008)
Cobb-processor: PFT (von Fa. KNAUF)

weight per unit area, density, collapse load, deflection & modulus of elasticity:

test material number	length [mm]	width [mm]	weight air-dry [g]	weight dry 40° C [g]	weight per unit area [kg/m²]	density [kg/m3]	effective span [kg/m3]	collapse load FU [N]	deflection f_{max} [mm]	modulus of elasticity [N/mm²]	test material number & direction of testing
1 L	401	300	1273,7	1269,2	10,6	844	350	657,2	11,81	3201	1 front view
1 T	400	300	1241,6	1237,4	10,3	825	350	252,1	16,51	2404	1 back view
2 L	400	300	1262,9	1257,0	10,5	845	350	625,5	11,35	3086	2 front view
2 T	399	300	1238,4	1233,4	10,3	831	350	228,3	3,80	2469	2 back view
3 L	400	301	1219,0	1213,5	10,1	813	350	646,3	11,63	2780	3 front view
3 T	400	300	1223,3	1218,3	10,2	819	350	249,3	11,67	2287	3 back view
average value:											

water absorption:

test material number	test period from time	test period to time	length [mm]	width [mm]	thickness [mm]	weight air-dry [g]	weight climate 23/50 [g]	weight wet after 2 hours [g]	water absorption [g]	water absorption [weight %]
1 L	11:27	13:27	125	124	12,5	163,6	163,8	165,8	2,0	1,22
1 T	13:30	15:30	125	123	12,5	164,3	164,5	166,5	2,0	1,22
2 L	07:27	09:27	124	124	12,5	160,2	160,4	162,7	2,3	1,43
2 T	09:33	11:33	125	124	12,6	164,2	164,3	166,4	2,1	1,28
3 L	11:35	13:35	125	124	12,5	157,9	158,3	161,0	2,7	1,71
3 T	13:38	15:38	127	125	12,3	159,6	159,9	161,8	1,9	1,19
average value:										

summary of test results

board number	dimension length [mm]	dimension width [mm]	dimension thickness [mm]	squareness R_w [mm/m]	taper profile width [mm]	taper profile depth [mm]	weight per unit area [kg/m²]	density [kg/m³]	collapse load in longitudinal direction (L) [N]	modulus of elasticity in longitudinal direction (L) [N/mm²]	collapse load in transverse direction (T) [N]	modulus of elasticity in transverse direction (T) [N/mm²]	water absorption front view [weight %]	water absorption back view [weight %]
1	2000	1198	12,5	1,67	41,0	0,59	10,5	835	657,20	3201	252,10	2404	1,22	1,22
2	2000	1197	12,4	1,25	41,0	0,23	10,4	838	625,50	3086	228,30	2469	1,43	1,28
3	2001	1198	12,4	1,25	42,5	0,42	10,2	816	646,30	2780	249,30	2287	1,71	1,19
average value:	2000	1198	12,4	1,39	41,5	0,41	10,3	830	-----	-----	-----	-----	1,45	1,23
DIN 18180 requirements	± 0,15 %	± 0,15 %	± 0,15 %	< 0,2 %	--	--	≥ 10	----	≥ 610	≥ 2800	≥ 210	≥ 2200	----	
meet:	yes	yes	yes	yes	-----	-----	yes	----	yes	yes	yes	yes	-----	

1/0

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Materialprüfanstalt f. d. Bauwesen MPA BS 1 Braunschweig

Annex 5: Boardtype 12,5 GKB Water Gboard

Client: Gboard

Boardtype: 12.5
Nominal size: 2000 x 1200 x 12.5 mm³ WR Water G Board GKB H tapered boarder
End-face marking: no labeling

Document No: 1433/956/10
Checker: M.Weber
Date of sampling : -
Test material received: 09.09.10

dimensions in as-required: 14-09-2010

board number:	length				width				thickness												
	1 [mm]	2 [mm]	3 [mm]	average value [mm]	1 [mm]	2 [mm]	3 [mm]	average value [mm]	1 [mm]	2 [mm]	3 [mm]	4 [mm]	5 [mm]	6 [mm]	7 [mm]	8 [mm]	9 [mm]	10 [mm]	11 [mm]	12 [mm]	average value [mm]
1	2000	2001	2000	2000	1198	1199	1199	1199	12,4	12,7	12,2	12,2	12,3	12,5	12,3	12,6	12,3	12,3	12,4	12,2	12,4
2	2000	2001	2002	2001	1198	1199	1199	1199	12,4	12,5	12,2	12,5	12,4	12,4	12,4	12,6	12,3	12,6	12,6	12,4	12,4
3	2000	2000	1999	2000	1198	1199	1198	1198	12,5	12,7	12,4	12,6	12,7	12,7	12,4	12,6	12,5	12,5	12,5	12,4	12,5
average value:				2000				1199													12,4

squareness and taper profile: 14-09-2010

board number:	squareness			taper width					taper depth				
	Δ_1 [mm]	Δ_2 [mm]	R_w [mm/m]	1 [mm]	2 [mm]	3 [mm]	4 [mm]	average value [mm]	1 [mm]	2 [mm]	3 [mm]	4 [mm]	average value [mm]
1	2	1	1,3	39	40	41	41	40	0,99	1,35	0,94	0,46	0,94
2	2	2	1,7	43	37	36	44	40	0,85	0,94	0,95	0,94	0,92
3	2	2	1,7	39	38	42	43	41	0,99	0,80	0,93	0,83	0,89
average value:			1,5					40					0,91

test equipment:

measuring tape: Tajima HiLock-16 (3000 mm)
slide gauge: 300 mm (MPA-024)
taper profile counter: Mahr Digital Meßuhr 1075 (MPA-055)
scales: Sartorius (LP 34000 P, Inv.-Nr.: 04011/ 035)
Sartorius (LC 2201 S, Inv.-Nr.: 7416)
climatic cabinet: Halle I, Raum 006 (Can-Bus:Dl, 006)
Cobb-processor : PFT (von Fa. KNAUF)

weight per unit area, density, collapse load; deflection & modulus of elasticity:

test material number:	length [mm]	width [mm]	weight air-dry [g]	weight dry 40° C [g]	weight per unit area [kg/m²]	density [kg/m3]	effective span [kg/m3]	collapse load FU [N]	deflection s_{max} [mm]	modulus of elasticity [N/mm²]	test material number & direction of testing
1 L	399	299	1293,4	1289,6	10,8	872	350	653,6	7,46	3265	1 front view
1 T	401	299	1299,5	1295,8	10,8	872	350	269,5	4,86	2620	1 back view
2 L	398	298	1285,5	1281,6	10,8	858	350	652,0	7,47	3325	2 front view
2 T	400	301	1311,9	1308,1	10,9	862	350	272,3	3,93	2759	2 back view
3 L	400	296	1255,5	1251,6	10,6	846	350	624,0	10,25	3144	3 front view
3 T	400	300	1259,3	1256,1	10,5	837	350	276,8	6,80	2476	3 back view
average value:											

water absorption:

test material number:	test period from time	test period to time	length [mm]	width [mm]	thickness [mm]	weight air-dry [g]	weight climate 23/50 [g]	weight wet after 2 hours [g]	water absorption [g]	water absorption [weight %]
1 L	07:30	09:30	124	124	12,3	164,5	164,6	165,8	1,20	0,73
1 T	09:30	11:30	124	125	12,4	171,8	172,0	173,4	1,40	0,81
2 L	07:25	09:25	124	125	12,6	167,5	167,8	168,7	0,90	0,54
2 T	09:29	11:29	126	123	12,4	166,8	166,9	168	1,10	0,66
3 L	11:47	13:47	124	123	12,5	161,4	161,5	162,6	1,00	0,62
3 T	13:48	15:48	125	123	12,3	162,0	162,9	163,1	0,20	0,12
average value:										

summary of test results

board number:	dimension length [mm]	dimension width [mm]	dimension thickness [mm]	squareness R_w [mm/m]	taper profile width [mm]	taper profile depth [mm]	weight per unit area [kg/m²]	density [kg/m³]	collapse load in longitudinal direction (L) [N]	modulus of elasticity in longitudinal direction (L) [N/mm²]	collapse load in transverse direction (T) [N]	modulus of elasticity in transverse direction (T) [N/mm²]	water absorption front view [weight %]	water absorption back view [weight %]
1	2001	1198	12,4	1,25	40,3	0,94	10,8	872	653,60	3265	269,50	2620	0,73	0,81
2	2000	1198	12,6	1,67	40,0	0,92	10,9	860	652,00	3325	272,30	2759	0,54	0,66
3	2000	1198	12,5	1,67	40,5	0,89	10,6	842	624,00	3144	276,80	2476	0,62	0,12
average value:	2000	1198	12,5	1,53	40,3	0,91	10,7	858	-----	-----	-----	-----	0,63	0,53
DIN EN 520 requirements	1995 to 2000	1196 to 1200	± 0,5 mm	3,0	40 bis 80	0,6 bis 2,5	----	≥ 600	≥ 515	----	≥ 210	----	water absorption class H1	
meet:	yes	yes	yes	yes	yes	yes	-----	yes	yes	-----	yes	-----	yes	

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Annex 6: Boardtype 12,5 GKB Water Gboard

Client: Gboard

Boardtype: 12.5
Nominal size: 2000 x 1200 x 12.5 mm³ WR Water G Board GKB H tapered boarder
End-face marking: no labeling

Document No: 1433/956/10
Checker: M.Weber
Date of sampling : -
Test material received: 09.09.10

dimensions in as-required: 14-09-2010

board number:	length 1 [mm]	length 2 [mm]	length 3 [mm]	length average value [mm]	width 1 [mm]	width 2 [mm]	width 3 [mm]	width average value [mm]	thickness 1 [mm]	thickness 2 [mm]	thickness 3 [mm]	thickness 4 [mm]	thickness 5 [mm]	thickness 6 [mm]	thickness 7 [mm]	thickness 8 [mm]	thickness 9 [mm]	thickness 10 [mm]	thickness 11 [mm]	thickness 12 [mm]	thickness average value [mm]
1	2000	2001	2000	2000	1198	1199	1199	1199	12,4	12,7	12,2	12,2	12,3	12,5	12,3	12,6	12,3	12,3	12,4	12,2	12,4
2	2000	2001	2002	2001	1198	1199	1199	1199	12,4	12,5	12,2	12,5	12,4	12,4	12,4	12,6	12,3	12,6	12,6	12,4	12,4
3	2000	2000	1999	2000	1198	1199	1198	1198	12,5	12,7	12,4	12,6	12,7	12,7	12,4	12,6	12,5	12,5	12,5	12,4	12,5
average value:				2000				1199													12,4

squareness and taper profile: 14-09-2010

board number:	squareness Δ_1 [mm]	squareness Δ_2 [mm]	squareness R_w [mm/m]	taper width 1 [mm]	taper width 2 [mm]	taper width 3 [mm]	taper width 4 [mm]	taper width average value [mm]	taper depth 1 [mm]	taper depth 2 [mm]	taper depth 3 [mm]	taper depth 4 [mm]	taper depth average value [mm]
1	2	1	1,3	39	40	41	41	40	0,99	1,35	0,94	0,46	0,94
2	2	2	1,7	43	37	36	44	40	0,85	0,94	0,95	0,94	0,92
3	2	2	1,7	39	38	42	43	41	0,99	0,80	0,93	0,83	0,89
average value:			1,5					40					0,91

test equipment:

measuring tape: Tajima HiLock-16 (3000 mm)
slide gauge: 300 mm (MPA-024)
taper profile counter: Mahr Digital Meßuhr 1075 (MPA-055)
scales: Sartorius (LP 34000 P, Inv.-Nr.: 04011/ 035)
Sartorius (LC 2201 S, Inv.-Nr.: 7416)
climatic cabinet: Halle I, Raum 006 (Can-Bus:DL 006)
Cobb-processor: PFT (von Fa. KNAUF)

weight per unit area, density, collapse load, deflection & modulus of elasticity:

test material number:	length [mm]	width [mm]	weight air-dry [g]	weight dry 40° C [g]	weight per unit area [kg/m²]	density [kg/m3]	effective span [kg/m3]	collapse load FU [N]	deflection s_{max} [mm]	modulus of elasticity [N/mm²]	test material number & direction of testing
1 L	399	299	1293,4	1289,6	10,8	872	350	653,6	7,46	3265	1 front view
1 T	401	299	1299,5	1295,8	10,8	872	350	269,5	4,86	2620	1 back view
2 L	398	298	1285,5	1281,6	10,8	858	350	652,0	7,47	3325	2 front view
2 T	400	301	1311,9	1308,1	10,9	862	350	272,3	3,93	2759	2 back view
3 L	400	296	1255,5	1251,6	10,6	846	350	624,0	10,25	3144	3 front view
3 T	400	300	1259,3	1256,1	10,5	837	350	276,8	6,80	2476	3 back view
average value:											

water absorption:

test material number:	test period from time	test period to time	length [mm]	width [mm]	thickness [mm]	weight air-dry [g]	weight climate 23/50 [g]	weight wet after 2 hours [g]	water absorption [g]	water absorption [weight %]
1 L	07:30	09:30	124	124	12,3	164,5	164,6	165,8	1,20	0,73
1 T	09:30	11:30	124	125	12,4	171,8	172,0	173,4	1,40	0,81
2 L	07:25	09:25	124	125	12,6	167,5	167,8	168,7	0,90	0,54
2 T	09:29	11:29	126	123	12,4	166,8	166,9	168	1,10	0,66
3 L	11:47	13:47	124	123	12,5	161,4	161,6	162,6	1,00	0,62
3 T	13:48	15:48	125	123	12,3	162,0	162,9	163,1	0,20	0,12
average value:										

summary of test results

board number:	dimension length [mm]	dimension width [mm]	dimension thickness [mm]	squareness R_w [mm/m]	taper profile width [mm]	taper profile depth [mm]	weight per unit area [kg/m²]	density [kg/m³]	collapse load in longitudinal direction (L) [N]	modulus of elasticity in longitudinal direction (L) [N/mm²]	collapse load in transverse direction (T) [N]	modulus of elasticity in transverse direction (T) [N/mm²]	water absorption front view [weight %]	water absorption back view [weight %]
1	2001	1198	12,4	1,25	40,3	0,94	10,8	872	653,60	3265	269,50	2620	0,73	0,81
2	2000	1198	12,6	1,67	40,0	0,92	10,9	860	652,00	3325	272,30	2759	0,54	0,66
3	2000	1198	12,5	1,67	40,5	0,89	10,6	842	624,00	3144	276,80	2476	0,62	0,12
average value:	2000	1198	12,5	1,53	40,3	0,91	10,7	858	-----	-----	-----	-----	0,63	0,53
DIN 18180 requirements	± 0,15 %	± 0,15 %	± 0,15 %	< 0,2 %	--	--	≥ 8,5	----	≥ 610	≥ 2800	≥ 210	≥ 2200	----	
meet:	yes	yes	yes	yes	-----	-----	yes	-----	yes	yes	yes	yes	-----	

2

Table 1 Test results nail pull resistance acc. ASTM C 473-10, Method B.

Auftraggeber / Client:	ASK Gulf Gypsum
Auftragsnummer / Comission no.:	1032/364/11
Sachbearbeiter / Advisor:	Frau / Ms Hirschfeld
Baustoffprüfer / Tester:	Herr / Mr. Weber
Probeneingang / Sample Arrival:	03.05.11 / 05-03-11
Plattentyp/Type of board:	Gboard regular
Aufdruck/inscription on boards:	-
Datum Prüfung / Date of test:	09.05.2011
Probenkond. / Sample Cond.:	nach/acc. ASTM C 473-10 29.5 ± 8.5 °C / 50 ± 2 % rel. LF/Hum.
Prüfnorm/ Test standard:	ASTM C473-10
Prüfmethode / Test method:	Methode B / Method B
Prüfmaschine/Testing machine:	elektromechanische Universalprüfmaschine, Inv.-Nr./ electro-mechanical universal testing machine, Reg.-No. 7420

Probe / Sample	Länge / Lenght [mm]	Breite / Width [mm]	Masse bei Lagerungsbeginn / Weight at beginning of storage 2011-05-03 [g]	Masse / Weight 2011-05-04 [g]	Masse bei Ende der Lagerung / Mass at end of storage 2011-05-09 [g]	Kraft / Force [N]
1 *	150	150	316.9	317.1	317.3	1098
2			328.1	328.4	328.6	942
3			325.3	325.6	325.7	909
4			326.2	326.5	326.7	1030
5			327.3	327.8	328.0	1052
Durchschnitt / Average						1006
Mittel/average + 15 %						856
Mittel/average - 15 %						855
Standardabweichung / Deviation						79
95% repeatability			Durchschnitt / Average - 24,95 N			981
95% reproducability			Durchschnitt / Average - 39,86 N			966

* Platten bei Anlieferung beschädigt / samples damaged due to the transport

Anforderung nach requirement acc. ASTM C 1396 für Plattendicke / thickness 12.7 mm	343 N
Anforderung / requirement	erfüllt / fulfilled

FUGRO – SUHAIMI
السحيمي - فيغرو

LETTER OF TRANSMITTAL

To	Gboard (ASK GYPSUM FACTORY LTD.)		
Attention	Mr. Elias Al Chami Mr. Charles El Khoury		
Reference	**Flexural Strength and Water Absorption of Regular and Water-Resistant Gypsum Wallboard – Test Reports**		
Project:	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Report Date**	14 June 2010
		Job No.	SA10-9585

Attached hereto are reports as follows:

Copies	Lab No.	Description	No of Samples
1	10663	Flexural Strength of Regular Gypsum Wallboard	04
1	10634	Flexural Strength and Water Absorption of Gypsum Wallboard	04

FUGRO-SUHAIMI LTD.

Syed Arshadullah
Laboratory Manager - Yanbu

FUGRO – SUHAIMI
السحيمي - فيـــزرو

LETTER OF TRANSMITTAL

To	Gboard (ASK GYPSUM FACTORY LTD.)		
Attention	Mr. Charles El Khoury		
Reference	**Surface Water Absorption of Water-Resistant Gypsum Wallboard Test Reports**		
Project:	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Report Date**	24 July 2010
		Job No.	SA10-9585

Attached hereto are reports as follows:

Copies	Lab No.	Description	No of Samples
1	10824/1-3	Surface Water Absorption of Water-Resistant Gypsum Wallboard	03

FUGRO-SUHAIMI LTD.

Syed Arshadullah
Laboratory Manager - Yanbu

FUGRO-SUHAIMI
السحيمي - فيـــزو

LETTER OF TRANSMITTAL

To	G Board (Ask Gypsum Factory)
Attention	Mr. Jawad Majeed - Sales Coordinator
Reference	**DIMENSION AND FLEXURAL STRENGTH OF REGULAR & WATER-RESISTANT GYPSUM WALLBOARD - TEST REPORT**

Project:	Ask Gypsum Plant, Yanbu Al Sinaiyah	**Report Date**	30 January 2012
		Job No.	SA11-9642

Attached hereto are reports as follows:

Copies	Lab No.	Description	No of Samples
1	031	Dimensions Measurement and Flexural Strength Determination of Regular Gypsum Wallboard (Nominal Size : 2400 x 1200 x 15.0 mm)	01
1	032	Dimensions Measurement and Flexural Strength Determination of Water - Resistant Gypsum Wallboard (Nominal Size : 2400 x 1200 x 15.0 mm)	01

FUGRO-SUHAIMI LTD.

Syed Arshadullah
Laboratory Manager - Yanbu

WATER ABSORPTION OF WATER-RESISTANT GYPSUM WALLBOARD - TEST REPORT

FUGRO – SUHAIMI
السحيمي - فيـــزرو

Client	Gboard (ASK GYPSUM FACTORY LTD.)	**Report Date**	14 June 2010
Project	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Job No.**	SA10-9585
Material Description	Gypsum Wallboard	**Lab No.**	10634
Test Method	ASTM C-473-07	**Sample Received by FSL**	25 May 2010
Product Description	Water Resistant Gypsum Wallboard	**Sampled by**	ASK Gypsum

FSL has performed standard testing on samples of gypsum wallboard to determine water absorption. The water absorption of the gypsum wallboard specimens is determined after conditioning and subsequently immersing the specimens in water for the specified 2 hours elapsed time. The test results and pertinent information are as follows:

Determination	Test Specimens	Test Results (%)	ASTM C-1396-06 Specification Requirements
Water Absorption after 2 hours Immersion (% of the original weight)	S-1	5.2	-
Water Absorption after 2 hours Immersion (% of the original weight)	S-2	4.9	-
Water Absorption after 2 hours Immersion (% of the original weight)	S-3	4.5	-
Water Absorption after 2 hours Immersion (% of the original weight)	S-4	4.2	-
	Average Value	**4.7**	**5.0 (Max.)**

Remarks: The test results indicated the test specimens have an average water absorption of 4.7 % by weight which is within the maximum specified permissible value of 5.0 %. The specimens tested **conform** to the ASTM C-1396-06 specification requirement for the water resistance.

شركة السحيمي - فيزرو للخدمات
FUGRO – SUHAIMI
Material Division
(Western Prov. Lab. 19)

FUGRO-SUHAIMI LTD.

DIMENSION AND FLEXURAL STRENGTH OF REGULAR GYPSUM WALLBOARD - TEST REPORT

FUGRO - SUHAIMI
السحيمي - فيغرو

Client	G Board (Ask Gypsum Factory)	**Report Date**	30 January 2012
Project	ASK Gypsum Plant, Yanbu Al Sinaiyah	**Job No.**	SA11-9642
Material Description	Gypsum Wallboard	**Lab No.**	031
Test Method	ASTM C-473-07	**Sample Received by FSL**	11 January 2012
Product Description	Regular Gypsum Wallboard	**Sampled by**	ASK Gypsum Co.

FSL has performed standard testing on samples of gypsum wallboard to determine the flexural strength. The testing was carried out by supporting the specimen near the ends and applying a transverse load midway between the supports at a uniform rate. The test results and pertinent information are as follows:

1. DIMENSION OF FULL-SIZE GYPSUM WALLBOARD

Specified Dimensions (mm) (Nominal)	Measured Dimensions (mm) (Average)	Permissible Tolerances (mm) (ASTM C-1396 Requirements)
Length : 2400	2400	-
Width : 1200	1200	- 3
Thickness : 15.0	15.0	± 0.4

2. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)

(Bearing Edges Parallel to Panel Length) Test Specimens	Breaking Load (N)	ASTM C-1396-06 Specification Requirements
S-1	352	
S-1	336	
S-3	344	
S-4	313	
Average Value	**336**	**222 (Minimum)**

3. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)

(Bearing Edges Perpendicular to Panel Length) Test Specimens	Breaking Load (N)	ASTM C-1396-06 Specification Requirements
S-1	665	
S-1	704	
S-3	672	
S-4	695	
Average Value	**684**	**667 (Minimum)**

Note: ASTM C-1396 M-06 "Standard Specification for Gypsum Board"

Remarks: The test results indicated **conformance** to the ASTM C-1396-06 specification requirement for the flexural strength and the measured dimensions is within the permissible tolerances.

شركة السحيمي - فيغرو للخدمات
FUGRO - SUHAIMI
Material Division
(Western Prov. Lab. 18)

FUGRO-SUHAIMI LTD.

DIMENSION AND FLEXURAL STRENGTH OF WATER-RESISTANT GYPSUM WALLBOARD - TEST REPORT

FUGRO – SUHAIMI
السحيمي - فيغرو

Client	G Board (Ask Gypsum Factory)	**Report Date**	30 January 2012
Project	ASK Gypsum Plant, Yanbu Al Sinaiyah	**Job No.**	SA11-9642
Material Description	Gypsum Wallboard	**Lab No.**	032
Test Method	ASTM C-473-07	**Sample Received by FSL**	11 January 2012
Product Description	Water-Resistant Gypsum Wallboard	**Sampled by**	ASK Gypsum Co.

FSL has performed standard testing on samples of gypsum wallboard to determine the flexural strength. The testing was carried out by supporting the specimen near the ends and applying a transverse load midway between the supports at a uniform rate. The test results and pertinent information are as follows:

1. DIMENSION OF FULL-SIZE GYPSUM WALLBOARD		
Specified Dimensions (mm) (Nominal)	**Measured Dimensions (mm) (Average)**	**Permissible Tolerances (mm) (ASTM C-1396 Requirements)**
Length : 2400	2400	-
Width : 1200	1199	- 3
Thickness : 15.0	15.0	± 0.4
2. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)		
(Bearing Edges Parallel to Panel Length) Test Specimens	**Breaking Load (N)**	**ASTM C-1396-06 Specification Requirements**
S-1	274	
S-1	282	
S-3	274	
S-4	289	
Average Value	**280**	**222 (Minimum)**
3. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)		
(Bearing Edges Perpendicular to Panel Length) Test Specimens	**Breaking Load (N)**	**ASTM C-1396-06 Specification Requirements**
S-1	657	
S-1	673	
S-3	680	
S-4	688	
Average Value	**675**	**667 (Minimum)**
Note: ASTM C-1396 M-06 "Standard Specification for Gypsum Board"		

Remarks: The test results indicated **conformance** to the ASTM C-1396-06 specification requirement for the flexural strength and the measured. dimensions is within the permissible tolerances.

شركة السحيمي - فيغرو المحدودة
FUGRO - SUHAIMI
Material Division
(Western Prov. Lab. 18)

FUGRO-SUHAIMI LTD.

SURFACE WATER ABSORPTION OF WATER-RESISTANT GYPSUM WALLBOARD - TEST REPORT

FUGRO – SUHAIMI
السحيمي - فيـــغرو

Client	Gboard (ASK GYPSUM FACTORY LTD.)	**Report Date**	24 July 2010
Project	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Job No.**	SA10-9585
Material Description	Gypsum Wallboard (Nominal Size: L: 2400 x W: 1200 x T: 12.5 mm)	**Lab No.**	10824/1-3
Test Method	ASTM C-473-07	**Sample Received by FSL**	13 July 2010
Product Description	Water Resistant Gypsum Wallboard	**Sampled by**	ASK Gypsum

FSL has performed standard testing on samples of gypsum wallboard to determine surface water absorption. The surface water absorption of the gypsum wallboard specimens is determined after conditioning and subsequently filling the specified test area with water. The water level adjusted to 1 in (25.4 mm) head of water above the test area of the specimen and allowed to remain undisturbed for the specified time period of 2 hours. The test results and pertinent information are as follows:

Determination	Test Specimens	*Test Results (g)	ASTM C-1396-06 Specification Requirements
Surface Water Absorption after 2 hours Elapsed Time	S-1	1.49	-
Surface Water Absorption after 2 hours Elapsed Time	S-2	1.53	-
Surface Water Absorption after 2 hours Elapsed Time	S-3	1.57	-
	Average Value	**1.5 g**	**1.6 g (Max.)**

Note: The above test results indicated the difference between the dry and wet weights of the test specimen in grams (g).

Remarks: The test results indicated the test specimens have an average surface water absorption of **1.5 g** which is within the maximum specified permissible value of **1.6 g**. The specimens tested **conform** to the ASTM C-1396-06 specification requirement for the surface water absorption.

شركة السحيمي - فيغرو للخدمات
FUGRO – SUHAIMI
Material Division
(Western Prov. Lab. 18)

FUGRO-SUHAIMI LTD.

With Gboard at the forefront of its innovations, ASK is a regional leader in the gypsum industry, catering to the local and regional market with 100% Saudi-manufactured gypsum boards, and a production capacity that is expected to reach 50 million sqm by 2012. .

We believe that a long-term partnership with consultants, contractors and end-consumers rests on a top quality product. This is why we make sure that our Gboard panels meet benchmark standards in Europe, the United States, and across the globe.

Today, as more and more partnerships and certifications endorse the excellence of our product, we cannot help but look into new ways for innovation and expansion.
State-of-the-art technology, production development, and recruitment of talent and expertise, are only some of the ways we are following to cater to an increasingly

On behalf of our team, we invite you to discover firsthand the advantages of our products, and partner with us in chalking out a new standard in the industry.

Founder and Chief Executive Officer

Charles J. El Khoury

Kingdom of Saudi Arabia
Royal Commission for Jubail and Yanbu
Directorate General for Royal Commission at Yanbu
Technical Affairs Division

المملكة العربية السعودية
الهيئة الملكية للجبيل وينبع
الادارة العامة للهيئة الملكية بينبع
قطاع الشئون الفنية

Environmental Consent to Construct

تصريح بيئى للانشاء

This Certificate is issued to :

ASK GYPSUM PLASTERBOARD FACTORY
YANBU AL-SINAIYAH

تم منح هذه الشهاده الى :-

مصنع أسك للألواح الجبسية
ينبع الصناعية.

under the authority of the Royal Commission for Jubail and Yanbu, and authorizes construction of the facility cited above in accordance with the general conditions,limitations, and other requirements of the environmental regulations of the Royal Commission for Jubail and Yanbu and the laws of the Kingdom of Saudi Arabia.

ان الهيئة الملكية للجبيل وينبع بما لها من صلاحيات تسمح بموجبه إنشاء المرفق المذكور أعلاه طبقا للشروط العامة والقيود والمتطلبات الاخرى من التنظيمات البيئيه الخاصة بالهيئة الملكية للجبيل وينبع وتلك التي تنص عليها نظم وقوانين المملكة العربية السعودية .

Facility I.D No.	77	المرفق رقم : 77
Certificate No.	2-77-0308	رقم الشهاده : 0308-77-2
Effective Date	MARCH 23, 2008	تاريخ بدء السريان : 23 مارس 2008 م

عنه

م / سعود بن عوضه المالكي

Deputy Director General for Technical Affairs

نائب المدير العام للشئون الفنية

١٤٢٩/٢/١٤

Date

التاريخ :

MYAS EC-1 1 Aug 04

Kingdom of Saudi Arabia
Royal Commission for Jubail and Yanbu
Directorate General at Yanbu
Technical Affairs Division

المملكة العربية السعودية
الهيئة الملكية للجبيل وينبع
الادارة العامة للهيئة الملكية بينبع
قطاع الشئون الفنية

Environmental Permit to Operate

تصريح بيئى للتشغيل

This Environmental Permit is issued to :

تم إصدار هذا الترخيص البيئي إلى:

ASK GYPSUM FACTORY
YANBU AL-SINAIYAH

مصنع أسك للجبس
ينبع الصناعية

under the authority of the Royal Commission for Jubail and Yanbu, and authorizes operation of the facility cited above in accordance with the general conditions, limitations, and other requirements of the environmental regulations of the Royal Commission for Jubail and Yanbu and the laws of the Kingdom of Saudi Arabia.

ان الهيئة الملكية للجبيل وينبع بما لها من صلاحيات تصرح بموجبه العمل في المرفق المذكور أعلاه طبقا للشروط العامة والقيود والمتطلبات الاخرى من التنظيمات البيئيه الخاصة بالهيئة الملكية للجبيل وينبع وتلك التى تنص عليها نظم وقوانين المملكة العربية السعودية .

Facility I.D No.	77	٧٧
Certificate No.	2-77-0710	٢-٧٧-٠٧١٠
Effective Date	14 July 2010	١٤ يوليو ٢٠١٠
Expiry Date	13 July 2015	١٣ يوليو ٢٠١٥
Area	26,180 m2	٢٦١٨٠ متر مربع
Location	A 15-LIP Area	قطعة أ ١٥- منطقة الصناعات الخفيفة

المرفق رقم :
رقم الشهاده :
تاريخ بدء السريان :
تاريخ انتهاء التصريح :
المساحة :
الموقع :

General Manager for Technical Affairs
مدير عام الشئون الفنية
م / توفيق بن يوسف رشيد

١٤٣١-٨-١
Date
التاريخ

Attached Conditions Are Mandatory part of this certificate

الشروط المرفقة جزء لا يتجزء من هذه الشهادة.

MYAS EC-1 24 Jun 10

المملكة العربية السعودية
وزارة التجارة و الصناعة

شهادة تسجيل شركة

الرقم: ٤٧٠٠٠٠٩٤٤٠
التاريخ: ١٤٢٧/٠١/٢٧

الإسم التجاري للشركة: شركة مصنع اسك للجبس المحدودة

نوعها: ذات مسئولية محدودة مختلطة — جنسيتها: سعوديه

مدة الشركة: ٩٩ سنة — تبدأ من: ١٤٢٧/٠١/٢٧ — وتنتهي في: ١٥٢٦/٠١/٢٦

مركزها الرئيسي: ينبع الصناعية - منطقة الصناعات الخفيفة

ص.ب: ٣١٣٨١ — الرمز البريدي: — هاتف: ٣٩٦٢٢٢٢ — تلكس: — فاكس: ٣٩٦٠٢٢٢

النشاط: إنتاج الجبس ومشتقاته و الالواح الجبسية بموجب ترخيص هيئة الاستثمار رقم ((٢/٦٥٩) وتاريخ ١٤٢٦/٠٧/٠٩هـ).

رأس المال: ٣٠٠٠٠٠٠٠,٠٠ ريال سعودى

المديرون:
١ - شارل جوزيف الخوري
٢ -
٣ -
٤ -
٥ -
٦ -
٧ -
٨ -
٩ -
١٠ -
١١ -
١٢ -

سلطات المدير / المديرون: حسب ما نص عليه عقد الشركة

يشهد مكتب السجل التجاري بمدينة ينبع بأنه تم تسجيل الشركة آنفة الذكر بسجل مدينة ينبع

وتنتهي صلاحية الشهادة في ١٤٣٤/٠١/٢٥ بموجب الإيصال رقم ٠٠٣٤٨٦٠٧ وتاريخ: ١٤٣٣/٠١/١٩

مدير السجل التجاري، الإسم: راشد غيث السفياني

التوقيع:

الختم: وزارة التجارة والصناعة — إدارة السجل التجاري والشركات — فرع ينبع

شهادة إشتراك

الغرفة التجارية الصناعية بمحافظة ينبع
Yanbu Chamber Of Commerce & Industry
إدارة شؤون المنتسبين

رقم العضوية : ١١٦٤٩٠
تاريخ الإصدار : ١٤٣٣/٠١/٠١
الدرجـــــة : الأولى

تاريخ الإشتراك : ١٤٢٧/٠١/٢٧

شركة مصنع اسك للجبس

رقم السجل التجاري / الترخيص ٤٧٠٠٠٠٩٤٤٠

مسجل لديها لهذا العام

وينتهي سريان هذه الشهادة بنهاية ذي الحجة من العام ١٤٣٣ هـ

توقيع المسئول

طلال بن داخل الرفاعي

ينبع ص ب ٥٨ هاتف: ٣٢٢٧٧٢٢-٣٩١٦٢٥٠ فاكس: ٣٩١٣٦٠٢-٣٢٢٦٨٠٠-٣٢٢٤٢٥٨ ينبع الصناعية ص ب ٣٠١٩٣ هاتف ٣٩٣٣١١٧ فاكس: ٣٩٦١٤٧٩- بدر ص ب ٥٩ هاتف ٣٣٢٠٩٩٨ فاكس ٣٢٢١٠٠٦
البريد الإلكتروني: Ycci@Yanbuchamber.org
موقع الغرفة : www.Yanbu chamber.Org

No. (GB9)

الغرفة التجارية الصناعية بمحافظة ينبع

Yanbu Chamber Of Commerce & Industry

إدارة شؤون المنتسبين

تاريخ الإشتراك : ١٤٢٧/٠١/٢٧

رقم العضوية : ١١٦٤٩٠

تاريخ الإصدار : ١٤٣٣/٠١/٠١

الدرجـــــة : الأولى

شركة مصنع اسك للجبس

رقم السجل التجاري / الترخيص ٤٧٠٠٠٠٩٤٤٠ **مسجل لديها لهذا العام**

وينتهي سريان هذه الشهادة بنهاية ذي الحجة من العام ١٤٣٣ هـ

توقيع المسئول

طلال بن دخيل الرفاعي

ينبع ص ب ٥٨ هاتف :٣٢٢٧٧٢٢-٣٩١٦٢٥٠ فاكس :٣٩١٣٦٠٢-٣٢٢٦٨٠٠-٣٢٢٤٢٥٨ ينبع الصناعية ص ب ٣٠١٩٣ هاتف ٣٩٣٣١١٧ فاكس :٣٩٩١٤٧٩- بدر ص ب ٥٩ هاتف ٣٣٢٠٩٩٨ فاكس ٣٢٢١٠٠٦

موقع الغرفة : www.Yanbu chamber.Org البريد الإلكتروني:Ycci@Yanbuchamber.org

Gboard

Build Natural

SUSTAINABLE MATERIAL DATASHEET

LEED: Leadership in Energy and Environmental Design

GBOARD provides the following information for use in selecting materials to achieve LEED certification credits.

Gypsum board credits which may apply to specific construction projects under LEED project designation area as follows:

MR CREDIT 4.1, 5.1, 5.2
EQ CREDIT 4.1
It is the responsibility of the design professional to access the applicability of specific credits to the project.

GBOARD GREEN FACTS:

* Recycled Paper: Our gypsum board is made with 100% recycled paper supplied by reputable paper mills.

Cardboard Recycled Content

Post Consumer Content %	Pre Consumer Content %	Total Recycled Content %	Raw Material Extraction Location
88	12	100	EU

* Raw Gypsum: the raw gypsum used in our manufacturing process is extracted from 100% natural resources, using environmentally conscious techniques.

* Energy Savings: Our raw gypsum is mined from our own quarry located in Yanbu, saving millions of gallons of fossil fuel (and associated emissions) otherwise used to transport via truck or ocean cargo.

* Volatile Organic Content: Gboard finished products have no reportable VOC Contents.

Gypsum Board Recycled Content:

GBOARD Gypsum Manufacturing Plant Location	Post Consumer Content %	Pre Consumer Content %	Total Recycled Content %	Raw Material Extraction Location
Yanbu, Light Industrial Area	1	3	4	Yanbu

FLEXURAL STRENGTH OF WATER-RESISTANT GYPSUM WALLBOARD TEST REPORT

FUGRO – SUHAIMI
الشحيمي - فيغرو

Client	Gboard (ASK GYPSUM FACTORY LTD.)	**Report Date**	14 June 2010
Project	ASK, Gypsum Factory, LIP, Yanbu Al-Sinaiyah	**Job No.**	SA10-9585
Material Description	Gypsum Wallboard	**Lab No.**	10634
Test Method	ASTM C-473-07	**Sample Received by FSL**	25 May 2010
Product Description	Water-Resistant Gypsum Wallboard	**Sampled by**	ASK GYPSUM

FSL has performed standard testing on samples of gypsum wallboard to determine the flexural strength. The testing was carried out by supporting the specimen near the ends and applying a transverse load midway between the supports at a uniform rate. The test results and pertinent information are as follows:

1. DIMENSION OF FULL-SIZE GYPSUM WALLBOARD

Specified Dimensions (mm) (Nominal)	Measured Dimensions (mm) (Average)	Permissible Tolerances (mm) (ASTM C-1396 Requirements)
Length : 2400	2400	-
Width : 1200	1200	- 3
Thickness : 12.5	12.5	± 0.4

2. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)

(Bearing Edges Parallel to Panel Length) Test Specimens	Breaking Load (N)	ASTM C-1396-06 Specification Requirements
S-1	490	
S-1	540	
S-3	500	
S-4	550	
Average Value	**520**	**489 (Minimum)**

3. FLEXURAL STRENGTH (Method A-Constant Rate of Loading)

(Bearing Edges Perpendicular to Panel Length) Test Specimens	Breaking Load (N)	ASTM C-1396-06 Specification Requirements
S-1	220	
S-1	230	
S-3	230	
S-4	240	
Average Value	**230**	**178 (Minimum)**

Note: ASTM C-1396 "Standard Specification for Gypsum Wallboard"

Remarks: The test results indicated **conformance** to the ASTM C-1396-06 specification requirement for the flexural strength.

شركة الشحيمي - فيغرو للخدمات
FUGRO – SUHAIMI
Material Division
(Western Prov. Lab. 18)

FUGRO-SUHAIMI LTD.

iBMB MPA TU BRAUNSCHWEIG

Institut für Baustoffe, Massivbau und Brandschutz | Materialprüfanstalt für das Bauwesen

Test Report

- Translation -

Dokument No.:	(1032/364/11) – Hir d.d. 05/12/2011
Client:	ASK Gypsum Factory Ltd. Jeddah Office Prince Faysal Bin Fahd Street - JEDDAH
Order date:	04/13/2011
Order Ref.:	Ms Labban, Mr Majeed
Order received:	04/13/2011
Subject:	Testing acc. ASTM C 1396
Test basis:	ASTM C 473-10 – Standard Test Methods for Physical Testing of Gypsum Panel Products
Test material received:	05/03/2011
Sampling:	By client, preparation (cutting) 150 mm x 150 mm by client drilling of pilot hole by MPA
Test material marking:	By MPA Braunschweig, samples 1 to 5 Board type: **Gboard Regular**
Test date:	05/09/2011
Validity:	Unlimited

Materialprüfanstalt f. d. Bauwesen MPA BS 1 Braunschweig

This Test Report contains 2 pages including cover sheet and 1 annexes.

This document is the translated version of Test Report (1032/364/11) – Hir d.d. 05/12/2011 . The legally binding text is the aforementioned German Test Report.

Materialprüfanstalt (MPA)
für das Bauwesen
Beethovenstraße 52
D-38106 Braunschweig

Phone
Fax +49 (0)531-391-5900
Info@mpa.tu-bs.de
www.mpa.tu-bs.de

Norddeutsche LB Hannover
106 020 050 bank code 250 500 00
Swift Code: NOLADE 2H
VAT ID No. DE183500654
Tax Reg. No. 14/201/22859

Notified body (0761-CPD)
MPA Braunschweig has been approved and notified as a civil engineering supervisory, inspection and certification body. MPA Braunschweig has been ISO/IEC17025 accredited as a testing and calibration laboratory and

1 Background

The ASK Gypsum Factory Ltd. from Jeddah/Saudi-Arabia commisioned the Braunschwieg Civil Engineering testing institute (MPA) to carry out nail pull resistance tests on gypsum plaster boards acc. to ASTM C 473-10, Method B.

2 Test material

The test material consists of 5 samples of gypsum plaster boards of 150 mm x 150 mm x 12.5 mm. The specimen were prepared by the client. There was no further labelling (type of plasterboard) on the specimen. According to the client the type of the plasterboard is: **Gboard Regular**.

The test material was damaged due to the transport, s. annex 2. In our opinion, these damages do not influence the test results.

Staff members of the MPA Braunschweig drilled the pilote holes acc. ASTM C 473-10, method B. Afterwards the specimens were conditioned to constant weight, s. Table 1.

3 Test results

Tests were carried out acc. ASTM C 473-10, Method B, using a servomechanical testing machine, s. Fig. A- 1. The load was applied on the front view of the samples. All test results including the statistical evaluation are printed in Table 1.

4 Summary

The MPA Braunschweig carried out nail pull resistance tests on gypsum plasterboards for the ASK Gulf Gypsum from Jeddah/Saudi-Arabia. Tests results are shown in Table 1. The tested specimen fulfill the requirement acc. ASTM C 1396.

Braunschweig, d.d.12.05.2011

The director of the testing laboratory

Dr.-Ing. A.-W. Gutsch

Materialprüfanstalt f. d. Bauwesen MPA BS 1 Braunschweig

The supervisor

i.A.

Dipl.-Ing. S. Hirschfeld

Schalldämm-Maß ISO 140-3:1995

Messung der Luftschalldämmung von Bauteilen im Prüfstand

Hersteller: gboard

Auftraggeber: ASK Gypsom Factory

Prüfgegenstand eingebaut von: MPA BS

Aufbau des Prüfgegenstandes:

Gboard 1200 mm x 1480 mm x 12,5 mm,

Produktbezeichnung: Char.-Nr. 08/03/11 14:12:49

Kennz. der Prüfräume: Prüfstand 6 / Prüfstand 5

Prüfdatum: 06.10.2011

MPA TU BRAUNSCHWEIG
Materialprüfanstalt
für das Bauwesen
Beethovenstraße 52
D-38106 Braunschweig

Prüffläche: 1,9 m²

Flächenbezogene Masse: kg/m²

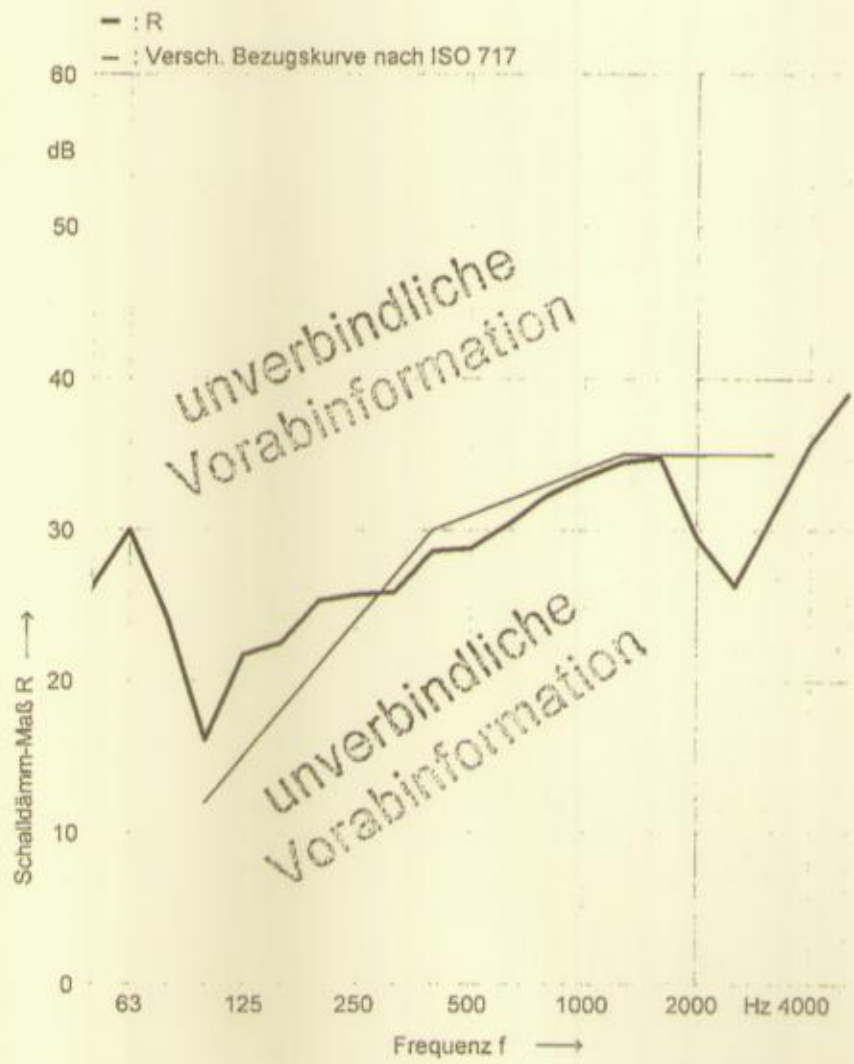
Temperatur [°C]: 53,1

Feuchtigkeit [%]: 19,2

Senderaum Volumen: 102,0 m³

Empfangsraum Volumen: 124,5 m³

Frequenz [Hz]	R Terz [dB]
50	26,2
63	30,0
80	24,1
100	16,1
125	21,7
160	22,5
200	25,3
250	25,7
315	25,9
400	28,6
500	28,8
630	30,4
800	32,3
1000	33,5
1250	34,5
1600	34,8
2000	29,5
2500	26,3
3150	31,0
4000	35,7
5000	39,0



Bewertung nach ISO 717-1

$R_w(C;C_{tr})$ = 31 (-1; -2) dB

$C_{50\text{-}3150}$: -1 dB $C_{50\text{-}5000}$: 0 dB $C_{100\text{-}5000}$: 0 dB

$C_{tr50\text{-}3150}$: -2 dB $C_{tr50\text{-}5000}$: -2 dB $C_{tr100\text{-}5000}$: -2 dB

Die Ermittlung basiert auf Prüfstands-Messergebnissen, die in Terzbändern gewonnen wurden.

MPA BS

Auftragsnummer: 18690

BS, 6.10.2011

MPA TU BRAUNSCHWEIG
Materialprüfanstalt
für das Bauwesen
Beethovenstraße 52
D-38106 Braunschweig

Unterschrift: i.A. Wilda

sample Attached

21

Proj. No.: S08087 Princess Noura Bint Abdulrahman University	Ministry of Finance -KSA	Submittal MAT/P1/AR/8426 REV No: 00
ENGINEER : dar al-handasah shair and partners	CONTRACTOR : Saudi Oger	Date 28/Sep/2011

Submittal for Approval of Materials

1. Material description (one item only on this form) :
Product data: Gboard Gypsum Board (ASK Gypsum Factory Ltd.)
w/samples, data sheets & test reports

Building Name : 0.0.0 General
Item Ref.No :
Specification Ref. : 09255.1.6.A
Zone : General
B.O.Q. Ref. No. :
Standards : as per specification

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. **Manufacturer / supplier**
Company Name : Gboard ASK Gypsum Factory Ltd.
Address : P.O. 31381, Yanbu Al Sinaiyah 51000, KSA
Local Agent : Mobile: 0553626676, Tel. : +96

3. **Delivery** :
Country of origin : Kingdom of Saudi Arabia

Availability
(●) Locally Manufactured ( ) Overseas

Delivery	Ex-works/ total duration	[ ]
	Estimated time of arrival on site	[ ]
Program	Date material required on site	[ ]
	Latest date for order	[ ]

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Stephane Chanteloux Signature :

4. Engineer's Representative comments:
Reference Specs:
Gypsum Wallboard [09 255-2.4B] ASTM C 36
Gypsum Board Base [09 255-2.4C] ASTM C 36
Water-Resistant Gypsum Backing Board [09 255-2.4D] ASTM C 630: **minimum thickness for this type shall be 16mm.**
Approved material on condition complying with the ASTM indicated standard (minimum) requirements, including **tapered and featured (round) edges** condition stipulated in 09 255-2.4B.4
The Contractor shall provide and install the required **trim accessories** [09 255- 2.6] as indicated in [09 255-3.8] and shown in the design and approved shop drawings and taking into consideration the thickness of the board.
Special Assembly Warranty: Provide (Manufacturer and Installer) final draft of a 10 years duration warranty for the whole gypsum board assembly.

Signature : Date : 01 OCT 2011

- ☐ Approved
- ☑ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☐ Sample required
- ☐ Tests required
- ☑ Additional information required — detail of assembly
- ☑ Manufacturer's guarantee required — final draft

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

RECEIVED 02 OCT 2011 SAUDI OGER LTD PNU SITE RIYADH

dar al-handasah shair and partners
01 OCT 2011
RECEIVED

Term "Construction Manager" Shall be deemed to be synonymous with the term "Engineer"

٢٨

Project	Consultant	Project Manage	Contractor
هيئة السوق المالية Capital Market Authority	JV	cyril sweett global knowhow	SAUDI BINLADIN GROUP Architecture & Build. Const. Div.

MATERIAL SUBMITTAL

Ref. No. : SBG | CMA | DM | AR | 344 | 11

Date : 11 | 06 | 11

X New Submittal
Resubmittal

X Architectural ☐ Electrical ☐ Civil ☐ Furniture/Equipment Specs. No. 09 21 16

☐ Structural ☐ Mechanical ☐ Interior Design ☐ Others Drwg. No. A 9102

Description*	Manufacturer	Supplier	No. of Catalogue/Sample		Code
Find enclosed 5 hard copies and 3 C.D's of :					B
GYPSUM BOARD FULL SYSTEM INCLUDE:			5	3	
1. GYPSUM DRAYWALL BOARD	G Board				
2. FRAMING AND SUPPORT SYSTEMS	A-METAL				
3. JOINT TAPE, COMPOUND.	A-METAL				
For your kind review and approval.					

* Description: (Manufacture, Model, Type, Size, Colour, etc.)

X Catalogue ☐ Drawing X Sample X Certificate X Calculation X Document

Having checked this submittal, we certify that it confirms to the requirements of the Contract Documents in all respects, except as otherwise indicated herein ( )

Material Engineer/Name & Signature : _____ Project Manager/Name & Signature _____

R.N.

Received by:

RECEIVED 11 JUN 2011

Date _____ Name & Signature of Consultant _____

Remarks / Comments:

ARCH.

SEE COMMENTS ON ATTACHED SHEET.

RECEIVED 14 JUN 2011 SAUDI BINLADIN GROUP

(Mubashar)

Status A Approved ☐ C Approved as noted, resubmit ☐ N No Action

B Approved as noted D Disapproved

HOK/Omrania JV Site Office		HOK/O&A (JV) Head Office		CLIENT's APPROVAL	
Engineer	Project Manager			Capital Market Authority (CMA)	
JUNE 13/2011	13/06/2011	13/6			
Date Name & Signature	Date Name & Signature	Date	Name & Signature	Date	Name & Signature

CMA TOWER PROJECT

RIYADH

هيئة السوق المالية
Capital Market Authority

DOCUMENT REVIEW FORM

Submittal Type:	**Pre Qualification & Material submittal**	**Submittal Date: 11-06-2011**
Submittal Ref. No:	**SBG-CMA-DM-AR-344**	**Revision: 0**
Submittal Title:	**Gypsum Board Full System (GWB + Framing & support system)**	

Review/Comments:

a) Prequalification of "A-Metal" is approved as Manufacture of Gypsum Board & Framing & Support Systems.

b) Gypsum Boards:
1. It is the contractor's responsibility to ensure this material is compatible with LEED requirements of CMAT (MR4.1, MR4.2, and MR5.1 & MR 5.2).
2. Fire resistance & moisture /fire resistance GWB to be labeled for recognition purposes on site.
3. Minimum thickness of GWB to be "12.5" mm (No. 9.5 mm) thick is required.
4. Contractor to comply with the Project Specs. issued on July15, 2010, Item ""0921 16-4 Clause # 3.3-3.9" for site installation.
5. Shop drawings of GWB yet to be submitted for review & approval prior to site installation.

c) Framing & Support System:
1.It is the Contractor's Responsibility to ensure this Material is compatible with LEED Requirements of CMAT "MR 401,MR4.2,MR 5.1& MR 5.2
2. All sizes of the Support System to comply with wall Assembly details in 'CD' Drawing # A9102 Rev.5
3. Comply with Clause 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 & 3.9 in Specs. # 092116 for walls of ceilings Installation on site.
4. Use 20-Guage studs for Fire-Resistant or abuse-resistant Gypsum Boards.

Result of Review : **Status** ___B___

Signature:	**Date:** June 13/2011.

KINGDOM OF SAUDI ARABIA
Ministry of Finance

المملكة العربية السعودية
وزارة المالية
وكالة الوزارة للخدمات المركزية

مشروع مركز إيواء الطوارئ بالشميسي
Emergency Lodging Center Project - Shumaisi

CONTRACTOR : مجموعة بن لادن السعودية SAUDI BINLADIN GROUP PUBLIC BUILDINGS & AIRPORTS المباني العامة والمطارات

SUPERVISING CONSULTANT : AL ETQUAN CONSULTANT OFFICE

الإستشاري: مكتب الإتقان للإستشارات الهندسية

من : مجموعة بن لادن السعودية | الى: مكتب الإتقان للإستشارات الهندسية | التقديم:

رقم التقديم : 1129-Z-1125.1	تقديم جديد ☐	
التقديم السابق :	إعادة تقديم ☑	
التاريخ : 08-Jun-11		
تاريخ الرجوع :		

رسومات تشغيلية ☐ | عينات ☑ | تصميم ☐ | مواد ☑ | ميكانيك ☐ | كهرباء ☐ | مدني ☐ | اخرى ☐ | إنشائي ☐ | معماري ☑

الغرض : للمراجعة والملاحظات ☐ | للملف ☐ | للإعتماد ☑ | لإجراء اللازم ☐

رقم البند	البيان	عدد النسخ	المخططات السابقة	مستندات المقاول التعاقدية: المواصفات	مستندات المقاول التعاقدية: رقم المخطط	التغيرات	توقيع المراجع	درجة الاعتماد (الاستشاري)
1	GYPSUM BOARD							B
	1. Gboard Regular						للبيع (ممنوع أسماء الألواح الكبيرة)	
	2. Gboard Impact Resistant						والمنتجات (منتجات المصنع)	
	3. Gboard Fire Resistant							
	4. Gboard Water Resistant							
	5. Gboard Water & Fire Resistant							
	Attachments:	1		3+3 first submitted				
	Company Profile + Catalogue + Samples + Coments							
	Mfg/Supplier: M/s ASK Gypsum Factory (Gboard)							

اسم وتوقيع ممثل المقاول: أيوب أحمد التوقيع : [signature] | مدير المشروع :

المستندات المقدمة مطابقة لمتطلبات المخططات التصميمية والمواصفات ومتوافقة مع بنود العمل المتعلقة بذلك

مكتب الإتقان للإستشارات الهندسية – مشروع مركز إيواء الطوارئ بالشميسي

ملاحظات الوزاره

ملاحظات مندوب الوزاره

طيب ٢٩/٦

مدير المشروع
الإسم :
التوقيع :
التاريخ : / /

ملاحظات الإستشاري

ملاحظات مندوب الإستشاري

مراعاة
- الاستخدام حسب مستندات توزيع لأنواع الألواح
حسب الكتابات والأماكن المبينة بالرسومات SD
- تحديد الأبعاد والمنتجات حسب متطلبات المشروع
- تقديم الأبعاد والمنتجات حسب اللوازم والاكسسوارات
...]

مدير المشروع
الاسم : م/طارق مغيمر عبدالتواب.
التوقيع : [signature]
التاريخ : 8/6/2011

الاعتماد: (A) معتمدة حسب التقديم ☐ | (B) معتمد حسب الملاحظات / لاضرورة لإعادة التقديم ☑ | (C) معتمدة حسب الملاحظات مع إعادة التقديم ☐ | (D) رفض مع إعادة التقديم ☐

٤٠

Gboard

Build Natural

COMMITMENT TO ENVIROMENT

Gboard is proud of its commitment to environmental standards and to green building practices.

We are committed to this environmental responsibility; we work diligently to minimize any negative impact on our surroundings, by minimizing the natural resource base of our gypsum board manufacturing process.

As part of our solid commitment, we comply with the standards of LEED sustainable materials programs as promoted by the U.S. Green Building Council (USGBC).

Gboard are successfully used in the construction of sustainable building projects around the country, while effectively looking into achieving important LEED points.

If the project is located within 500 miles of our manufacturing facility, additional credits may contribute to LEED projects.

The following certificates contain information applicable about Gypsums product manufactured by GBOARD.

Regards.

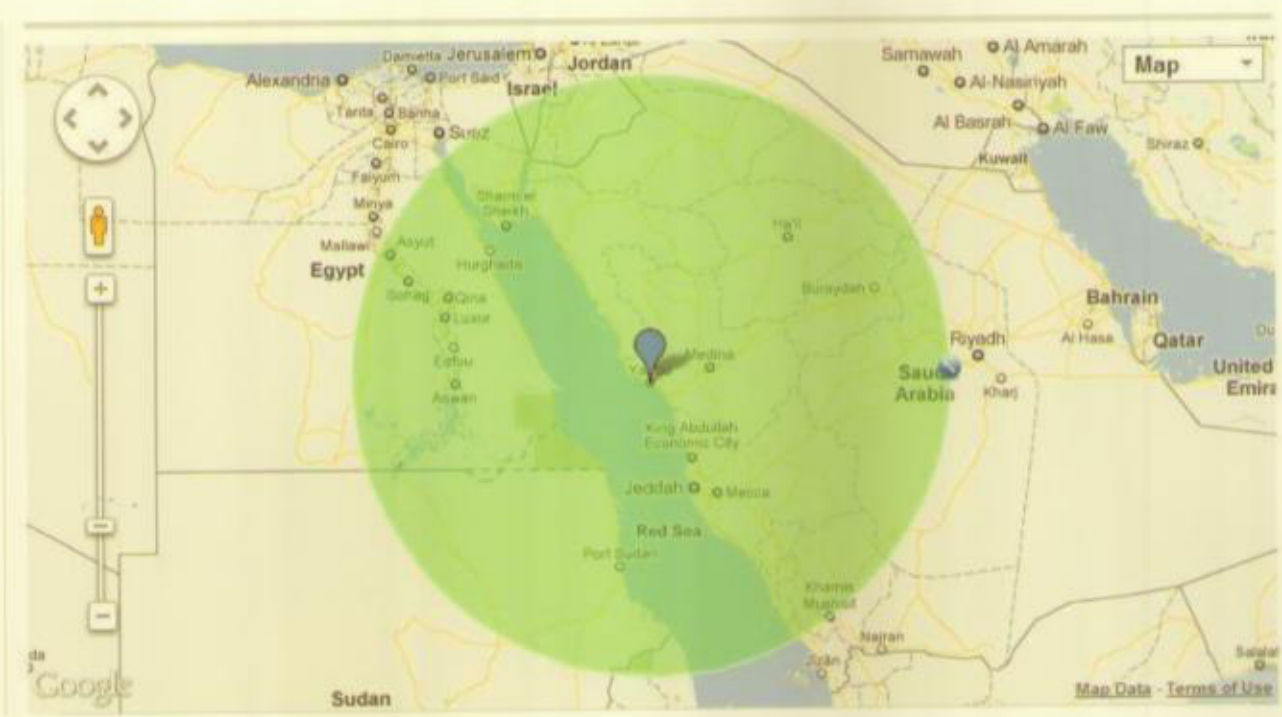
Gboard

Build Natural

MILEAGE REFERENCE MAP FOR GBOARD

We, ASK Gypsum Factory, certify that our product, GBOARD, is extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation

Below is a map showing a 500 mile radius from our four gypsum board manufacturing facilities producing product with high levels of recycled and reclaimed content that can contribute toward **LEED CREDIT MR 5.**



REQUEST FOR TECHNICAL APPROVAL

CONTRACTOR : **SAUDI BINLADIN GROUP (ABCD)**
P.O. BOX # 3104, JEDDAH - 21471, K.S.A.

DATE : 3-Feb-2011 (DAY MONTH YEAR)

TO : Mr. Towfiq Al-Abdul Hadi
SENIOR PROJECT ENGINEER
SA/DG&PO & SF Bldg Prg. Unit
Dhahran 31311, K.S.A.
SAUDI ARAMCO

ATTN
PROJECT ENGINEER

CONTRACT NO : 6000019098,6000019099,6000019140, 6000019141,6000019142
J.O. NO :
PROJECT TITLE : KING ABDULLAH UNIVERSITY FOR SCIENCE & TECHNOLOGY
LOCATION : THUWAL

REFERENCE SUBMITTAL NO : 05 20 40-22
[X] NEW SUBMITTAL
[ ] RESUBMITTAL

NO OF COPIES : 03
TO LINE ITEM NO : 01
DIVISION NO : NA
SPECS. SECTION : NA

SUBMITTAL CODE :
A [X] ARCHITECTURAL
C [ ] CIVIL
S [ ] STRUCTURAL
M [ ] MECHANICAL
E [ ] ELECTRICAL
O [ ] OTHERS

ITEM NO	DESCRIPTION	MANUFACTURER/ VENDOR	CATALOG, SPECS, PARAGRAPH, OR DRWG NUMBER	(FOR SAUDI ARAMCO USE ONLY) COMMENTS
	ASK GYPSUM FACTORY LTD.	**ARABIAN ROOTS JEDDAH, KSA** VENDOR #10031406		1. NO OBJECTION FOR ASK GYPSUM FACTORY LTD. TO FOLLOW THE FOLLOWING REQUIREMENT. * 12.5 MM THK FOR CEILINGS * 10 MM THK FOR WALLS * TYPE RG FOR NORMAL USE * TYPE WR FOR WET AREAS * TYPE FR FOR FIRE RESISTANT AREA * TYPE WR AND FR FOR BOTH FIRE RESISTANT & WET AREAS
1	**COMPANY PROFILE (ASK GYPSUM FAC. LTD)** A) GYPSUM BOARD B) PLASTER BOARD APPLICABLE AT ZONE 1 TO 6		PROFILE	
	FOR YOUR REVIEW AND APPROVAL			

SUBMITTED BY
Eng. Ashraf Shoaib
Name & Signature of Contractor Representative
Date: 03/02/2011

These documents have been reviewed for general conformance with the Contract. Such review does not relieve the Contractor of his responsibilities under the terms of the Contract nor authorize additional compensation.

[ ] NO OBJECTION
[✓] NO OBJECTION AS NOTED
[ ] CORRECT & RESUBMIT
[ ] REJECTED

Name & Signature of SAUDI ARAMCO Representative
Mr. Towfiq Al-Abdul-Hadi | Date :
Phone: 992-6409; Fax: 992-6354
Approved Materials delivered to site :
SAUDI ARAMCO Site Supt
Date

Gboard

Build Natural

ASK Gypsum Factory Ltd.

P.O. Box: 31381 Yanbu
Al Sinaiyah 51000 - KSA
Tel : 00966 2 613 0000
Fax: (Jeddah) Ext: 101
Fax: (Yanbu) Ext: 102
info@gboard-sa.com

www.gboard-sa.com

Build Natural

In compliance with international Standards

99.9 % Natural Product

Gypsum, A Noble Product

Gypsum has been present in construction since ancient times. Archaeologists in Anatolia - Turkey - have found vestiges of gypsum on walls dating back to 9,000 B.C, as well as traces of gypsum monuments and statues in Egypt and Greece going back to long gone eras. This material was also discovered by the Islamic civilization, which used it to sculpt delicate arabesques and to decorate the interior of mosques and palaces.

الجبس، مادة عصرية ذات تاريخ

يعود استخدام الجبس في البناء إلى العصور القديمة. فقد عثر علماء الآثار في أنطوليا - تركيا - على بقايا من الجبس على جدران تعود إلى ٩٠٠٠ سنة قبل الميلاد . كما عُثر على آثار تماثيل ومعابد من الجبس في مصر واليونان تعود إلى العصر القديم . وقد اكتشفت الحضارة الإسلامية أيضاً هذه المادة في العصور الوسطى، فاستخدمتها لنحت الزخرفات العربية الدقيقة ولتزيين داخلية المساجد والقصور .

Today

In a world that has rediscovered the importance of gypsum in construction, ASK Gypsum factory saw the light. Established in 2005, the Company came to produce the highest quality of gypsum powder, by utilizing natural gypsum found in its own mines, and by using some of the most advanced equipment and machinery available.
To keep up with the growing demand in the Middle East in general and the GCC in particular, a separate facility for the production of gypsum boards was established, bearing the name of the product: Gboard. This 75,000 sqm facility produces over 20 million sqm of gypsum boards per year, and is further expanding to reach 50 million sqm by 2012.

اليوم

مع فهم المصممين أكثر لأهمية الجبس في البناء، تأسست شركة "أسك للجبس المحدودة" ونجحت في فترة قصيرة بعد تأسيسها عام ٢٠٠٥، في تصنيع أجود أنواع البودرة باستخدام الجبس الطبيعي المستخرج من مقالعها الخاصة، وباستعمال أحدث الآلات والوسائل التكنولوجية وأكثرها تطوراً .
لمواكبة الطلب المتزايد في منطقة الشرق الأوسط عموماً ودول مجلس تعاون الخليج خصوصاً، تمّ تأسيس منشآت خاصة بصناعة ألواح الجبس، تحت اسم "جي بورد." وتنتج هذه المنشآت البالغة مساحتها ٧٥ ألف متر مربّع، أكثر من ٢٠ مليون متر مربع من ألواح الجبس سنوياً، وهي قيد التوسّع لتبلغ إنتاجيتها ٥٠ مليون متر مربّع بحلول العام ٢٠١٢.

Pioneers by Excellence

For us, leadership goes beyond meeting client's expectations. It is rather exceeding them by offering exceptional service, innovative solutions and quality products at the best value. This is what makes us a reference in reliability and economy, and a key player in the industry with an ever increasing market share.

ريادة بامتياز

بالنسبة إلينا، الريادة لا تقتصر على تلبية توقعات العميل بل تستلزم تخطّيها بتأمين خدمة استثنائية وحلول مبتكرة ومنتجات عالية الجودة بأفضل أسعار . هذا ما يجعلنا المرجع في الموثوقية والكفاءة، ولاعباً أساسياً في مجال البناء تتزايد حصته من السوق باستمرار .

Experience Meets Innovation

Gboard is one of the largest suppliers of gypsum products in the Gulf and the Region, and has brought to the Kingdom of Saudi Arabia more than 50 years of experience in the industry.

الخبرة تلاقي الابتكار

تُعد "جي بورد" واحدة من أكبر الشركات المصنّعة لألواح الجبس في الخليج والمنطقة، ومن أكثرها عراقة، فقد نقلت إلى المملكة العربية السعودية أكثر من ٥٠ عاماً من الخبرة في هذا المجال .

It does so with the help of an expert team of 355 individuals with the highest competencies and skills. Research and development departments constantly search for the latest techniques and innovations to produce the highest quality and most cost effective product. Even so, it is relentlessly committed to continuous technological development and diversification for the improvement of its products and service performance.

ومع ذلك، هي حريصة على تحديث وسائلها التكنولوجية بإستمرار وتنويع مواردها التقنية بهدف تحسين منتجاتها وخدماتها.تحقيقاً لذلك، يعمل لدى الشركة فريق متكامل من ٣٥٥ عنصراً يتمتعون بأهم الخبرات والكفاءات والمهارات. ويواظب قسم الابحاث والتطوير على دراسة آخر التقنيات وأهم الابتكارات وأفضل الحلول الانتاجية لضمان أعلى مستوى من الجودة .

إحترام البيئة في كل النواحي

اهتماماً منا بالبيئة وبالتوجّه العالمي نحو ترشيد الطاقة، تستخدم "جي بورد" أكثر الوسائل الصديقة للبيئة في عملياتها ا الانتاجية. يتم استخراج الجبس الخام من مصادر طبيعية ١٠٠% باستخدام تقنيات "خضراء" تحدّ من الغبار تخفف من الملوّثات وتحافظ على الطاقة والمياه .

هذا الاستخدام المثالي للموارد الطبيعية، بالإضافة إلى التطوّر التكنولوجي المستمر، قد ساعد "جي بورد" على تصدّر المنافسة كشركة تواظب على تطوير منتجاتها وتؤمن لزبائنها منتجات لا تضاهى من حيث النوعية والكلفة .

Green By All Means

With the environment in mind and the conservation of energy as a shared concern, Gboard applies the most eco-friendly methods in its production processes. Raw gypsum is extracted from 100% natural resources, using environmentally conscious techniques - dust minimization, waste diminution, and conservation of energy and water - are only a few examples. This optimized utilization of natural resources, combined with cutting-edge technologies, has helped Gboard remain ahead of competition as a Company that continuously develops its products and provides benchmark quality at effective value for consumers.

"لبناء طبيعي"

الألواح الجبسية هي التسمية الشائعة لمجموعة من المنتجات ذات الجوف غير القابل للاشتعال، يتشكّل من الجبس بشكل رئيسي، تغلّفه طبقات ورقية من الجهتين والجوانب . وتتميز هذه الألواح عن المنتجات الأخرى مثل الخشب المضغوط والألواح الصلبة، بميزاتها العازلة ومقاومتها للحريق. وتشكّل ألواح "جي بورد" أساساً لجدران جميلة، لأنه يسهل العمل بها، وتمنح الجدران والأسطح مظهراً ناعماً ومتناسقاً. ويتم تصنيع ألواح "جي بورد" بمختلف المقاسات والأنواع، لتكون فعالة ومعقولة الكلفة في صناعة البناء وإعادة التصميم .

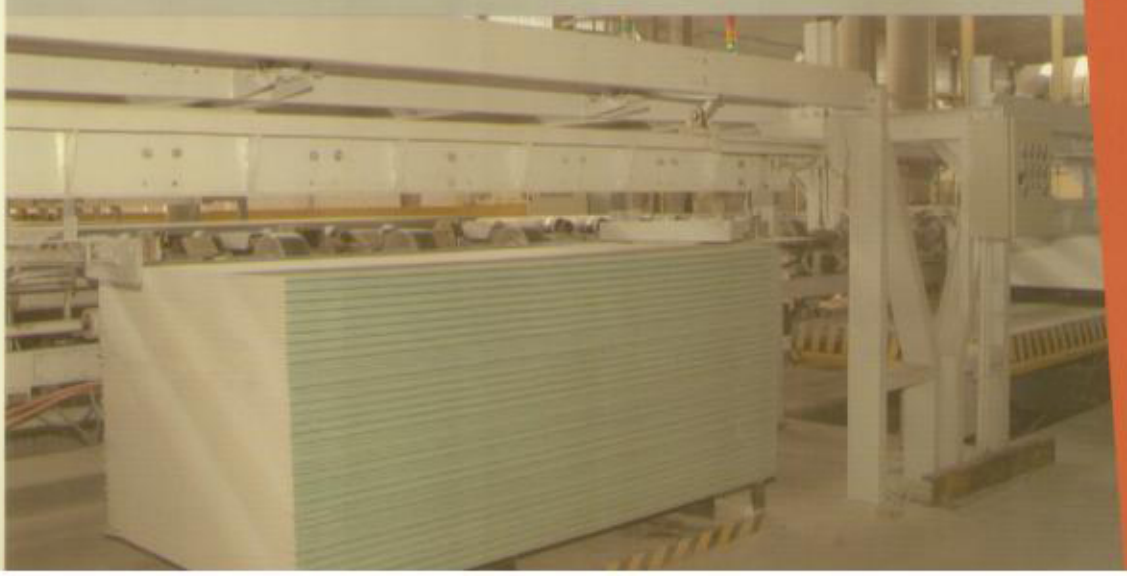
جميع منتجات "جي بورد" مصنوعة من الجبس العالي الجودة، وهي طبيعية بنسبة ٩٩،٩ % وهذا يجعلها متينة وسهلة القص والتحكم .

Build Natural

Gypsum board is the generic name for a family of panel shaped products consisting of a noncombustible core, primarily made of gypsum, lined with a paper surface on the front, back and sides. Gypsum board is often called drywall, wallboard or plasterboard and differs from products such as plywood, hardboard, and fiberboard, because of its fire resistant core.

Gboard is the foundation for beautiful walls, that's because it offers an easy to work with, smooth, consistent surface. Manufactured in a range of dimensions and types, it is an efficient, affordable, lightweight material for both remodeling and new constructions.

All boards are manufactured from the highest quality gypsum, and are 99.9% natural, making them light, strong, and easy to cut and handle. Special additives give the boards their distinctive characteristics.



One Product, Multiple Advantages

Known to make homes weather resistant, energy efficient, and easier to remodel, Gypsum has become an essential element for building interiors. It is also used to add strength to the interior walls of facilities, and has insulation qualities that enhance living and working conditions.
Gboard offers the full spectrum of gypsum boards, from standard boards for general use, to boards fire and water resistant .
To further improve these types, Gboard introduced impact-resistant boards, used in schools, hospitals and public facilities to reinforce walls that are subject to collision and pressure.

منتج واحد، منافع متعددة

المعروف عن ألواح الجبس أنها عازلة جيدة تجعل البناء أقل تأثرا بالطقس وتخفف استهلاكه من الطاقة، و تسهّل على أصحاب المنازل إعادة تصميمها من الداخل . كما تتميز بعزلها للصوت وبتحسين بيئة العيش والعمل، هذا ما يجعلها جزءاً لا يتجزأ من مقومات البناء .
وتقدم "جي بورد" جميع أنواع الألواح الجبسية، من العادية للاستخدام العام، إلى الألواح المقاومة للحرائق والرطوبة بهدف تطوير منتجاتها، ابتكرت "جي بورد" الألواح المقاومة للصدمات، المستخدمة في المدارس والمستشفيات والمنشآت العامة حيث تكون الجدران عرضة للضغط أو الاصطدامات المفاجئة .

Gboard Types and Specifications

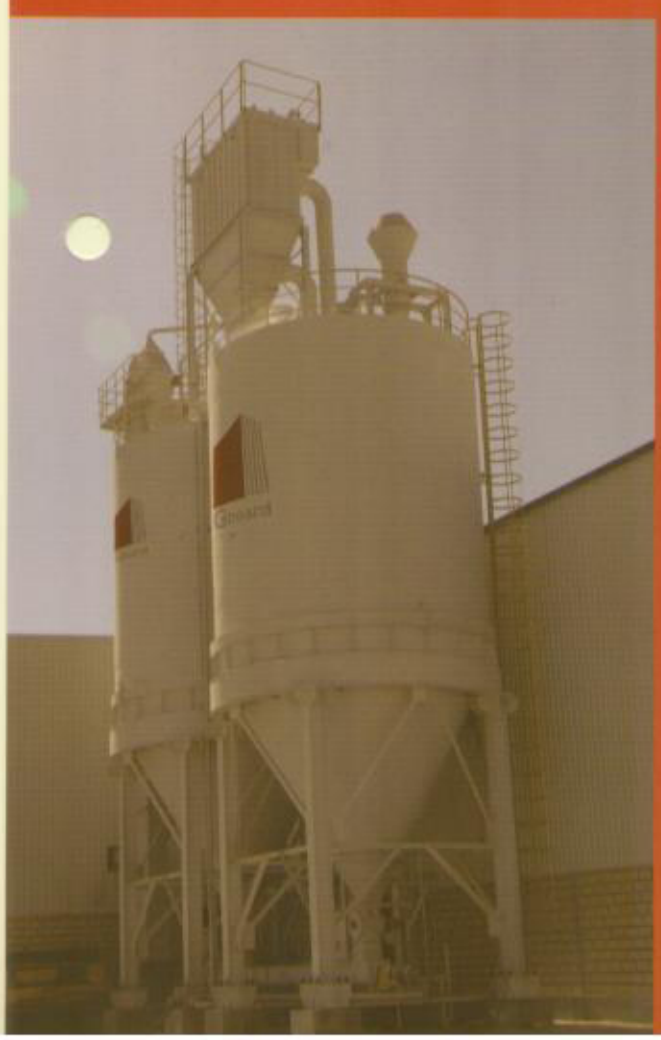
Gboard offers the full spectrum of gypsum boards to complete any dry partitioning project, regardless of scale. Our quality range includes standard boards for general use, as well as a comprehensive selection of high performance boards, with specific characteristics that include :

- Fire resistance
- Water resistance
- Impact resistance
- Control of water vapor
- Sound reduction
- Thermal insulation

ألواح "جي بورد": أنواعها ومواصفاتها

تضم "جي بورد" مجموعة شاملة من الألواح العالية الأداء لتشييد اي نوع من انشاءات التقطيع الداخلي للجدران أو السقوف مهما كانت المساحة. وتشمل مجموعة "جي بورد" مجموعة خاصة من الألواح العالية الأداء ذات مواصفات محددة أهمها :

- مقاومة الحرائق
- مقاومة الرطوبة
- مقاومة الصدمات
- التحكم ببخار المياه
- عزل الصوت
- العزل الحراري



RG Regular - Gboard: Suits a wide range of applications for both residential and non-residential buildings.

WR Water Resistant - Gboard: Suitable for use in internal wet and high humidity areas.

FR Fire Resistant - Gboard: For internal lining applications where a fire resistance level is required. This product offers superior fire protection.

WR & FR Water & Fire Resistant - Gboard: A dual-purpose board offering both superior fire and water resistance qualities when applied in areas where such characteristics are required or specified.

IR Impact Resistant - Gboard: Provides high density and high impact resistance in facilities where walls are often prone to pressure or abrupt collisions.

Available Dimensions & Thickness Options:

- 2000 mm • 2400 mm • 2500 mm • 2800 mm • 3000 mm x 1200 mm
- 6.5 mm • 9.5 mm • 12.5 mm • 15 mm • 16 mm • 18 mm

Other thicknesses are available upon request.

RG

WR

"جي بورد" العادي: مناسب لمعظم الاستخدامات داخل الأبنية السكنية وغير السكنية على حد سواء .

"جي بورد" المقاوم للرطوبة: مناسب للجدران والسقوف في المناطق العالية الرطوبة .

"جي بورد" المقاوم للحرائق: مناسب للاستعمالات الداخلية التي تتطلّب مستوى معيّن من الحماية ضد الحرائق، ويؤمّن هذا النوع من الألواح حماية ممتازة ضد النار .

"جي بورد" المقاوم للرطوبة والحرائق: هذا اللوح المزدوج الفعالية يجمع بين الحماية ضد النار والحماية من الرطوبة على حد سواء، وهو مثالي للمنشآت التي تتطلّب هاتين الخاصتين .

"جي بورد" المقاوم للصدمات: يؤمّن هذا اللوح الجبسي كثافة مرتفعة ومقاومة عالية ضد الصدمات في المنشآت التي تتعرّض فيها الجدران للضغط أو الضربات المفاجئة .

السماكة والأحجام المتوفرة:

٢٠٠٠ ملم – ٢٤٠٠ ملم – ٢٥٠٠ ملم – ٢٨٠٠ ملم – ٣٠٠٠ ملم x ١٢٠٠ ملم

٦،٥ ملم – ٩،٥ ملم – ١٢،٥ ملم – ١٥ ملم – ١٦ ملم – ١٨ ملم

تتوفّر سماكات أخرى حسب الطلب.

FR

WR - FR

TECHNICAL SPECIFICATIONS
As per EUROPEAN STANDARD (EN 520)

1. Types and Dimensions

1.1. Types of Plasterboards:
Regular plasterboard (type A)
Fire resistant plasterboard (type F)
Water resistant plasterboard (type H)
Combined plasterboard

1. 2. Dimensions of Plasterboards:

1.2.1. Edges:
Square, Beveled, Tapered, Rounded, Half-rounded, Half-rounded tapered.

1.2.2. Thicknesses:
9.5mm, 12.5mm, 15.0mm.
Other nominal thicknesses are also possible and the minimum thickness is 6.0mm.

1.2.3. Widths:
600mm, 625mm, 900mm, 1200mm, 1250mm.
Other widths are also possible.

1.2.4. Lengths:
No requirement.

2.2. OTHER REQUIREMENTS

Table 2

Item	EN Value	Gboard Standard	Remark
Tolerance of Length	(0 ~ 6) mm	(0 ~ 4) mm	Type A, F, H
Tolerance of Width	(0 ~ 4) mm	(0 ~ 3) mm	Type A, F, H
Tolerance of Thickness	< 18 mm ± 0.5 mm	≤ + 0.5 mm	Type A, F, H or combined
Depth of taper	(0.6 ~ 2.5) mm	(1.0 ~ 1.7) mm	Type A, F, H or combined
Width of taper	(40 ~ 80) mm	(40 ~ 50) mm	Type A, F, H or combined
Squareness of ends	≤ 2.5 mm/m	≤ 2.0 mm/m	Type A, F, H or combined
Core cohesion at high temperature	Qualified	Qualified	Type F or combined
Surface water absorption	≤ 180g/m^2	≤ 160g/m^2	Type H, E or combined
Water absorption	H1 ≤ 5% H2 ≤ 10% H3 ≤ 25%	≤ 4.6% ≤ 8% ≤ 19%	Type H, E or combined

2. REQUIREMENTS

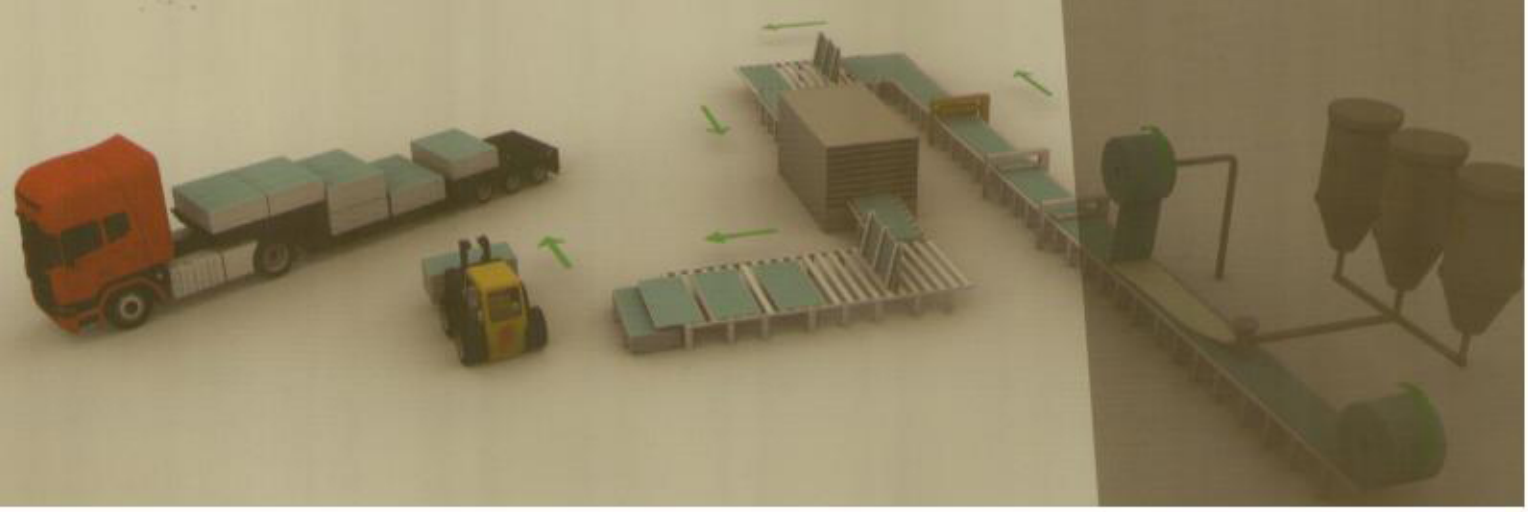
2.1. Flexural strength(expressed as flexural breaking load)
The flexural breaking load of plasterboard
(type A, F, H or combined) shall not be less than the values given in Table 1.
Additionally, no individual test shall demonstrate the product to be more than 10% below the values given in Table 1.

٢. الشروط

١.٢ قدرة مقاومة الانحناء(المعبر عنها أيضاً بالحمل الانكساري)
يجب ألا يقل الحمل الانكساري للألواح (أنواع A و F و H والمزدوجة) عن القيم المشار إليها في الجدول ١ كما لا يجب أن يتدنى المنتج عن القيم الواردة في الجدول ١ بأكثر من ١٠% في أي فحص منفرد.

Table 1-Flexural breaking load

Thickness	Transverse Direction	Longitudinal Direction	Gboard Standard
9.5 mm	160 N	400 N	195 N / 490 N
12.5 mm	210 N	550 N	250 N / 650 N
15.0 mm	250 N	650 N	300 N / 780 N



International Standards

Gboard's commitment to quality is evident in every aspect and level of the company. We continually deploy the most recent technologies, attain quality certifications, produce innovative designs, and continuously update our team's knowledge and skills. This enables us to provide products and services to the most exacting quality standards, conforming to the requirements of our European, American, and global markets. Being in command of the whole cycle, from the quarry to the finished product, our Quality Control begins with monitoring the raw materials received. This ensures that we maintain the optimum level of quality from the initial start. During the process, dimensions, weight, flexibility and resistance tests are carried out to ensure that all of our products, standard or customized, meet the highest standards.

Manufactured in compliance with ASTM and EN standards, Gboard is also UL certified. UL is the most trusted resource across the world for security standards, issuing certificates for a product when it qualifies and meets all the requirements and safety norms set forth by the Underwriters Laboratories.

معايير دولية

إن التزام "جي بورد" بالجودة يشمل كل ناحية في الشركة. فنحن حريصون دائماً على استخدام آخر اكتشافات التكنولوجيا، والاستحصال على شهادات عالمية للجودة، وإنتاج تصاميم مبتكرة، وتطوير مهارات موظفينا باستمرار. هذا ما يمّكننا من تقديم المنتجات والخدمات على مستوى ممتاز من الجودة، يتوافق مع معايير الأسواق الأوروبية والأميركية والعالمية.

كوننا نتحكم بكافة مراحل التصنيع، من المقلع الى المنتج النهائي، فإن نظام ضبط الجودة لدينا يبدأ بمراقبة نوعية المواد الأولية المستلمة. بهذا نكفل انطلاق عملية الإنتاج مع أفضل نوعية من الجبس الخام .

بعد عملية التجفيف، يتم إجراء الاختبارات للقياسات والوزن والمرونة والمقاومة، للحد من أي تفاوت في الإنتاج، وللتأكد من أن المنتج يستوفي أعلى معايير الجودة، أكان عادياً أم حسب الطلب.

يتم إنتاج جي بورد وفقاً للمواصفات الأميركية والأوروبية، وقد اجتازت بنجاح كافة الاختبارات والمتطلبات الصارمة التي وضعتها مختبرات أندرايترز العالمية لتحقيق أعلى معايير الأمان والسلامة. وتعد مختبرات أندرايترز من الهيئات العالمية الرائدة في اختبار واعتماد المنتجات المختلفة لتحديد مدى التزامها بتطبيق المعايير والمتطلبات العالمية للأمان والسلامة العامة.

المواصفات التقنية
حسب المعايير الأوروبية (EN 520)

١- الأنواع و القياسات

١-١ أنواع الألواح :

ألواح عادية (نوع A)
ألواح مقاومة للحرائق (نوع F)
ألواح مقاومة للماء (نوع H)
وألواح مزدوجة

١-٢ قياسات الألواح :

١-٢-١ الأطراف :
مربّعة، مشطوبة، مستديرة، نصف مستديرة، نصف مستديرة ومشطوبة.

١-٢-٢ السماكة :
٩،٥ ملم، ١٢،٥ ملم، ١٥،٠ ملم.
يمكن تأمين سماكات أخرى، علماً أن الحد الأدنى للسماكة هو ٦،٠ ملم.

١-٢-٣ العرض :
٦٠٠ ملم، ٦٢٥ ملم، ٩٠٠ ملم، ١٢٠٠ ملم، ١٢٥٠ ملم.
يمكن تأمين قياسات مختلفة من حيث العرض أيضاً.

١-٢-٤ الطول :
غير محدّد.

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