SECUROCK® GYPSUM-FIBER ROOF BOARD

PRODUCT TECHNICAL STATEMENT

High-performance gypsum-fiber roof board for use in low-slope commercial roofing systems
- Exceptional bond and low absorption in adhered systems
- Moisture- and mold-resistant
- Excellent wind-uplift performance
- Manufactured from 97% recycled material

USE
USG Boral Securock® Gypsum-Fiber Roof Board is a high-performance roof board for use in low-slope roofing systems. Its unique fiber-reinforced, uniform composition gives the panel strength and water resistance through to the core. USG Boral Securock Gypsum-Fiber Roof Board provides exceptional bond and low absorption in adhered systems and, with uniform composition, achieves high wind-uplift ratings with no risk of facer delamination. Made from 97% recycled material, USG Boral Securock Gypsum-Fiber Roof Board combines superior performance with sustainable design for all types of roofing systems, including single-ply, fluid-applied, built-up, spray foam, metal and modified bitumen membrane roofing.

CONDITIONS & LIMITATIONS
- USG Boral Securock Gypsum-Fiber Roof Board is engineered to perform within a properly designed roof system. The use of USG Boral Securock Gypsum-Fiber Roof Board as a roofing component is the responsibility of the design professional.
- Consult roofing manufacturers for specific instructions on the application of their products to USG Boral Securock Gypsum-Fiber Roof Board.
- Weather conditions, dew, application temperature, installation techniques and moisture drive can have adverse effects on the performance of the roof system and are beyond the control of USG Boral.
- Keep USG Boral Securock Gypsum-Fiber Roof Board panels dry before, during and after installation. USG Boral Securock Gypsum-Fiber Roof Board should not be installed during rain, heavy fog and any other conditions that deposit moisture on the surface of the board. Apply only as much USG Boral Securock Gypsum-Fiber Roof Board that can be covered by final roof membrane system in the same day. Avoid exposure to moisture from leaks or condensation.
- For reroof or re-cover applications, existing roofing system must be dry throughout prior to application of USG Boral Securock Gypsum-Fiber Roof Board.
- Plastic or poly packaging applied at the plant to protect board during transport should be removed upon receipt to prevent condensation or trapping of moisture, which may cause application problems.
- USG Boral Securock Gypsum-Fiber Roof Board should be stored flat and off the ground with protection from the weather. If stored outdoors, a breathable waterproof covering should be used.
- When applying solvent-based adhesives or primers, allow sufficient time for the solvent to evaporate to avoid damage to roofing components.
- USG Boral allows the bonding of cold mastic-modified bitumen and torching directly to the surface. Consult with the system manufacturer for recommendations on this application.
- USG Boral recommends maximum asphalt application temperature for Type III asphalt of 235°C when using USG Boral Securock Gypsum-Fiber Roof Board. Application temperatures above these recommended temperatures may adversely affect roof system performance.
- When installed as a part of a roofing system, USG Boral Securock Gypsum-Fiber Roof Board will contribute to compliance with the following performance criteria of the NZ Building Code.
  - It must be specified by an LBP, able to provide a design memorandum to the relevant Building Consent Authority (BCA), if RBW provisions apply.
  - Installation must be undertaken by or supervised by an LBP (carpentry license). If RBW provisions apply, this same LBP must complete the RBW memorandum. (RBW - restricted building work).
## PRODUCT TECHNICAL STATEMENT

### DESCRIPTION OF SECUROCK GYPSUM-FIBER ROOF BOARD

<table>
<thead>
<tr>
<th>Thickness mm</th>
<th>10</th>
<th>13</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width, standard mm</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Length, standard mm</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
</tr>
<tr>
<td>Mass, nominal kg/m²</td>
<td>9.6</td>
<td>13.5</td>
<td>15.6</td>
</tr>
<tr>
<td>Compressive strength, MPa, nominal</td>
<td>12.4</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>Flute spanability, mm, per ASTM E661</td>
<td>127</td>
<td>203</td>
<td>254</td>
</tr>
<tr>
<td>Permeance, perms, per ASTM E96</td>
<td>26</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>R Value per ASTM C518</td>
<td>0.3</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Water absorption, % max, per ASTM C473</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Surface water absorption, nominal grams, per ASTM C473</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Mold resistance per ASTM D3273*</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Bending radius, m</td>
<td>7.6</td>
<td>7.6</td>
<td>9.1</td>
</tr>
</tbody>
</table>

* ASTM D3273 Mold Resistance Testing: In independent lab tests conducted on USG Boral Securock Gypsum-Fiber Roof Board and USG Boral Securock Glass-Mat Roof Board at the time of manufacture per ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber, both panels scored a 1v0. The ASTM lab test may not accurately represent the mold performance of building materials in actual use. Given unsuitable project conditions during storage, installation or after completion, any building material can be overwhelmed by mold. To manage the growth of mold, the best and most cost-effective strategy is to protect building products from water exposure during storage and installation and after completion of the building. This can be accomplished by using good design and construction practices.

### NZBC COMPLIANCE

USG Boral Securock Gypsum complies with the following performance criteria of the NZ Building Code.

<table>
<thead>
<tr>
<th>PERFORMANCE CRITERIA</th>
<th>EVIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.3.1</td>
<td></td>
</tr>
<tr>
<td>B1.3.2</td>
<td></td>
</tr>
<tr>
<td>B1.3.3 (a, b, c, f, j, l, o, t)</td>
<td>Manufactured in accordance with ASTM C1278</td>
</tr>
<tr>
<td>B1.3.4 (a, b, c, e)</td>
<td></td>
</tr>
<tr>
<td>B2.3.1(a)</td>
<td></td>
</tr>
<tr>
<td>B2.3.2</td>
<td></td>
</tr>
<tr>
<td>B3.4 (a)</td>
<td>Material Group No 1-5 BRANZ assessment FH5774</td>
</tr>
<tr>
<td>F2.3.1</td>
<td>Manufactured in accordance with ASTM C1278</td>
</tr>
</tbody>
</table>

When installed as a part of the roofing system, USG Boral Securock Gypsum-Fiber Roof Board will contribute to compliance with the following performance criteria of the NZ Building Code:

| B1   | TBA |
| B2.3.1(a), B2.3.2 | In Service history |
| C6.2 | BRANZ Tests and Assessments |
| G6.3.1 | TBA |
| E3.3.1, E2.3.2 | ASTM D3273 |

## PERFORMANCE DETAILS

### Exceptional Strength:
Engineered to provide superior wind-uplift performance for a wide variety of roof assemblies. USG Boral Securock Gypsum-Fiber Roof Board has uniform composition providing enhanced bond strength of membrane systems with no risk of facer delamination.

### Fire Performance:
Provides excellent fire performance and demonstrates exceptional surface burning characteristics [ASTM E84 (CAN/ULC-S102) Flame Spread 5, Smoke Developed 0].

### Moisture and Mold:
Uniform water-resistant core ensures excellent moisture and mold resistance. Scored a maximum “10” for mold resistance on ASTM D3273.

### Versatile:
Can be used as a component in single-ply, fluid-applied, built-up, spray foam, metal and modified bitumen membrane roofing.

### Sustainability:
Made from 97% recycled materials and has earned independent certification from Scientific Certification Systems for this achievement.
» PRODUCT TECHNICAL STATEMENT

INSTALLATION
- Refer to roof system manufacturer’s written instructions, local code requirements and Underwriters Laboratories (UL) requirements for proper installation techniques.
- Use fasteners specified in accordance with above requirements. Install approved fasteners with plates into the USG Boral Securock Gypsum-Fiber Roof Board, flush with the surface. Fasteners should be installed in strict compliance with the roof system manufacturer’s installation recommendations.
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of USG Boral Securock Gypsum-Fiber Roof Board.
- Butt board edges and ends loosely (minimum 1.5mm gap on all edges) in typical installations. This gap may need to be larger depending on factors like the roof deck’s size, membrane color, ultimate deck surface temperature and time of year the roof assembly is installed. Installations during temperatures below -15°C may require larger spacing.
- Roof boards should never be installed frozen.
- See product above table above for maximum flute span when panels are applied directly over metal decking.
- For vertical parapet applications, only 13mm or 16mm panels should be used. Maximum framing spacing is 600mm centres.
- Refer to system manufacturers installation manual for more details.

MAINTENANCE
USG Boral Securock Gypsum-Fiber Roof Board does not require maintenance but USG Boral recommends that a visual check of the board be undertaken as part of normal maintenance, for instance when the surface coating is reapplied. In the event that damage is apparent to the Securock board then it must be removed and replaced in accordance with the system manufacturers Technical Installation Manual.

STORAGE & TRANSPORTATION
USG Boral Securock Gypsum-Fiber Roof Board, like all plasterboards, is vulnerable to damage during transit. It should be transported and stored horizontally. Once onsite ensure that it is covered, to avoid the possibility of exposure to moisture.

QUALITY ASSURANCE

REFERENCES
Refer www.usgboral.com for information on USG Boral Securock Gypsum-Fiber Roof Board. Test results may be available upon request, providing the information is not commercially sensitive.

WARRANTY
For details of the USG Boral warranty refer www.usgboral.com

DURABILITY STATEMENT
This statement is in relation to Clause B2 Durability of the New Zealand Building Code (NZBC). USG Boral Plasterboard products and systems when installed in accordance with the installation instructions detailed within the relevant Technical Installation literature are fully compliant with the NZBC.

FURTHER INFORMATION
Contact USG Boral TecASSIST on 0800 USGBORAL (0800 874-267) or online at www.usgboral.com
For sales enquiries:
Auckland (09) 270-2595
Wellington (05) 560-4528
Christchurch (03) 365-4245

www.usgboral.com