Gold Bond® Fire-Shield® C™ Gypsum Boards
by National Gypsum Company

CLASSIFICATION: 09 29 00.00 Finishes: Gypsum Board

PRODUCT DESCRIPTION: Gold Bond® BRAND Fire-Shield® Type C Gypsum Board consists of a fire-resistant gypsum core (Type C) with a heavy, natural finish and 100-percent recycled paper on the face and back sides. The face paper folds around the long edges to reinforce and protect the core, and the ends are cut square and finished smooth. Use it for interior, fire-rated wall and ceiling applications. For speed of installation, GridMarX® guide marks are printed on the paper surface. This HPD covers 5/8" Gold Bond® BRAND Fire-Shield® C Gypsum Board and 5/8" Gold Bond® BRAND Kal-Kore Fire-Shield® C Plaster Base.

CONTENT INVENTORY

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
FIRE-SHIELD® TYPE C GYPSUM CORE | GYPSUM | LT-UNK
FIRE-SHIELD® TYPE C GYPSUM CORE | VERMICULITE | LT-UNK
STARCH | LT-UNK
GLASS | MINERAL FIBER | LT-UNK
QUARTZ | LT-1
GOLD BOND PAPER FACING | MIXED RECYCLED PAPER | LT-UNK
2,5-FURANDIONE, DIHYDRO-, MONO-C15-20-ALKENYL DERIVS. | LT-UNK
STARCH | LT-UNK

Number of Greenscreen BM-4/BM3 contents ... 0
Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.1, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight. Therefore, this HPD qualifies for the LEED v4 MR credit Building Product Disclosure and Optimization: Material Ingredient Reporting (Option 1). Substances not "Identified" are those without a registered identifier.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC emissions: UL/GreenGuard Gold Certified
VOC emissions: UL/GreenGuard Certified

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

CERTIFICATIONS AND COMPLIANCE

See Section 3 for additional listings.

VOC emissions: UL/GreenGuard Gold Certified
VOC emissions: UL/GreenGuard Certified

PREPARE: Elixir Environmental
VERIFIER:
VERIFICATION #:
## Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-standard](http://www.hpd-collaborative.org/hpd-2-1-standard)

### FIRE-SHIELD® TYPE C GYPSUM CORE

<table>
<thead>
<tr>
<th>%: 95.2000 - 96.2000</th>
<th>HPD URL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIAL THRESHOLD: 1000 ppm</td>
<td>RESIDUALS AND IMPURITIES CONSIDERED: Yes</td>
</tr>
</tbody>
</table>

**RESIDUALS AND IMPURITIES NOTES:** Residuals or impurities with the potential to be present at or above the Content Inventory Threshold indicated that return a GS score of BM-1, LT-1, LT-P1 or NoGS have been disclosed based on batch testing, supplier SDS, and as predicted by process chemistry (Pharos CML).

**OTHER MATERIAL NOTES:**

### GYPSUM

<table>
<thead>
<tr>
<th>%: 94.0000 - 94.5000</th>
<th>GS: LT-UNK</th>
<th>RC: PreC</th>
<th>NANO: No</th>
<th>ROLE: Core Substrate</th>
</tr>
</thead>
</table>

**HAZARDS:** None Found

*No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** May also include CASRN 10101-41-4 (LT-UNK; No warnings found on HPD Priority lists). Four National Gypsum plants produce gypsum board exclusively with Pre-Consumer (Post-Industrial) byproduct gypsum [Shippingport, PA; Mt. Holly, NC; Westwego, LA; Shoals, IN]. Eleven National Gypsum plants produce gypsum board exclusively with natural rock gypsum [Burlington, NJ; Fort Dodge, IA; Long Beach, CA; Medicine Lodge, KS; National City, MI; Phoenix, AZ; Portsmouth, NH; Richmond, CA; Rotan, TX; Savannah, GA; Waukegan, IL]. Two National Gypsum plants produce gypsum board with a blend of Pre-Consumer (Post-Industrial) byproduct gypsum and natural rock gypsum [Apollo Beach, FL; Baltimore, MD].

### VERMICULITE

<table>
<thead>
<tr>
<th>%: 4.0000 - 4.5000</th>
<th>GS: NoGS</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Improves Fire Resistance</th>
</tr>
</thead>
</table>

**HAZARDS:** None Found

*No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Supplier confirms no asbestos detected (EPA method EPA/600/R-93/116).

### STARCH

<table>
<thead>
<tr>
<th>%: 0.9000 - 1.2000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Improves Binding and Core Strength</th>
</tr>
</thead>
</table>

**HAZARDS:** None Found

*No warnings found on HPD Priority lists*
### GLASS / MINERAL FIBER

**ID:** 65997-17-3

<table>
<thead>
<tr>
<th>%: 0.4000 - 0.5000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Improves Core Strength</th>
</tr>
</thead>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>CANCER</th>
<th>AGENCY</th>
<th>IES WITH WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EU - GHS (H-Statements)</td>
<td>H351 - Suspected of causing cancer</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Identified on the US EPA Safer Chemical Ingredient List. May also include CASRN 65996-63-6 (LT-UNK; No warnings found on HPD Priority lists).

### QUARTZ

**ID:** 14808-60-7

<table>
<thead>
<tr>
<th>%: Impurity/Residual</th>
<th>GS: LT-1</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Impurity/Residual</th>
</tr>
</thead>
</table>

**HAZARDS:**

<table>
<thead>
<tr>
<th>CANCER</th>
<th>AGENCY</th>
<th>IES WITH WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US CDC - Occupational Carcinogens</td>
<td>Occupational Carcinogen</td>
</tr>
<tr>
<td></td>
<td>US NIH - Report on Carcinogens</td>
<td>Known to be Human Carcinogen (respirable size - occupational setting)</td>
</tr>
<tr>
<td></td>
<td>MAK</td>
<td>Carcinogen Group 1 - Substances that cause cancer in man</td>
</tr>
<tr>
<td></td>
<td>CA EPA - Prop 65</td>
<td>Carcinogen - specific to chemical form or exposure route</td>
</tr>
<tr>
<td></td>
<td>IARC</td>
<td>Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources</td>
</tr>
<tr>
<td></td>
<td>New Zealand - GHS</td>
<td>6.7A - Known or presumed human carcinogens</td>
</tr>
<tr>
<td></td>
<td>Japan - GHS</td>
<td>Carcinogenicity - Category 1A</td>
</tr>
<tr>
<td></td>
<td>Australia - GHS</td>
<td>H350 - May cause cancer</td>
</tr>
<tr>
<td></td>
<td>Australia - GHS</td>
<td>H350i - May cause cancer by inhalation</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Identified on the US EPA Safer Chemical Ingredient List. Potential impurity of raw materials (e.g., Vermiculite). Quartz is one of several compounds with warnings restricted to respirable forms (Pharos CML). Exposures to respirable crystalline silica are not expected during the recommended use of this product. Awaiting full GreenScreen Assessment for form specific hazards for this compound (http://ow.ly/Z5ken).

### GOLD BOND PAPER FACING

<table>
<thead>
<tr>
<th>%: 3.8000 - 4.8000</th>
<th>HPD URL:</th>
</tr>
</thead>
</table>

**MATERIAL THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** Yes

**RESIDUALS AND IMPURITIES NOTES:** No residuals or impurities are known or expected to be present at or above the Content Inventory Threshold indicated that have a GS score of BM-1, LT-1, LT-P1 or NoGS based on supplier SDS and as predicted by process chemistry (Pharos CML).

**OTHER MATERIAL NOTES:**
### MIXED RECYCLED PAPER

|----------------------|---------|----------|---------|--------------------------------------|

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** 100% of our gypsum board face and back paper is produced with post-consumer recycled content. The company's three paper mills produce paper from discarded cardboard and magazines.

### 2,5-FURANDIONE, DIHYDRO-, MONO-C15-20-ALKENYL DERIVS.

<table>
<thead>
<tr>
<th>%: 0.2000 - 0.3000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Sizing Aid</th>
</tr>
</thead>
</table>

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Alkenyl Succinic Anhydride.

### STARCH

<table>
<thead>
<tr>
<th>%: 0.1000 - 0.2000</th>
<th>GS: LT-UNK</th>
<th>RC: None</th>
<th>NANO: No</th>
<th>ROLE: Binder</th>
</tr>
</thead>
</table>

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Identified on the US EPA Safer Chemical Ingredient List.
This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

### VOC EMISSIONS

**UL/GreenGuard Gold Certified**

<table>
<thead>
<tr>
<th>CERTIFYING PARTY:</th>
<th>Third Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLICABLE FACILITIES:</td>
<td>All</td>
</tr>
<tr>
<td>ISSUE DATE:</td>
<td>2008-12-31</td>
</tr>
<tr>
<td>EXPIRY DATE:</td>
<td>2018-12-28</td>
</tr>
<tr>
<td>CERTIFIER OR LAB:</td>
<td>UL Environment</td>
</tr>
</tbody>
</table>

**CERTIFICATION AND COMPLIANCE NOTES:** Certificate Number 82464-420. UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings. Building products and interior finishes are determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 using an Office and Classroom Environment. Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.

<table>
<thead>
<tr>
<th>CERTIFYING PARTY:</th>
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</tr>
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<td>APPLICABLE FACILITIES:</td>
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<tr>
<td>CERTIFIER OR LAB:</td>
<td>UL Environment</td>
</tr>
</tbody>
</table>

**CERTIFICATION AND COMPLIANCE NOTES:** Certificate Number 82464-410. UL 2818 - 2013 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings. Building materials are determined compliant in accordance with an Office environment with an air change of 0.68 hr⁻¹ and a loading of 11.10 m². Products tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1.

### Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

**PROFORM® PAPER JOINT TAPE**

| HPD URL: | http://designcenter.nationalgypsum.com/sustainability/category/health-product-declaration-hpd |

**CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:** Finish gypsum board with either paper tape, such as ProForm® Paper Joint Tape, and ready mix joint compound; or fiberglass mesh or paper tape and setting compound.

**PROFORM® READY MIX JOINT COMPOUNDS (VOC <2 G/L)**

Finish gypsum board with either paper tape and ready mix joint compound, such as ProForm® Ready Mix Joint Compounds; or fiberglass mesh or paper tape and setting compound.

PROFORM® SETTING TYPE JOINT COMPOUNDS

HPD URL: http://designcenter.nationalgypsum.com/sustainability/category/health-product-declaration-hpd

Finish gypsum board with either paper tape and ready mix joint compound; or fiberglass mesh or paper tape and setting compound, such as ProForm® Setting Type Joint Compounds.

Section 5: General Notes

Residuals and Impurities have been considered as stated in the Material Notes for each disclosed material.
MANUFACTURER INFORMATION

MANUFACTURER: National Gypsum Company
ADDRESS: 2001 Rexford Road
Charlotte NC 28211, USA
WEBSITE: www.NationalGypsum.com

CONTACT NAME: Amy Hockett
TITLE: National Marketing Manager - Construction Design Services & Sustainability
PHONE: 704-365-7931
EMAIL: AmyH@NationalGypsum.com

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
MAM Mammalian/systemic/organ toxicity
MUL Multiple hazards
NEU Neurotoxicity
OZO Ozone depletion
PBT Persistent Bioaccumulative Toxic
PHY Physical Hazard (reactive)
REP Reproductive toxicity
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
LAN Land Toxicity
NF Not found on Priority Hazard Lists

GreenScreen (GS)
BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (insufficient data to benchmark)
LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
NoGS Unknown (no data on List Translator Lists)

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:
- Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
- Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
- Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.