**Gold Bond® BRAND Fire-Shield® Shaftliner** consists of a fire-resistant Type X gypsum core encased in green, heavy, moisture-resistant paper that is 100-percent recycled on the face and back sides. The face paper is folded around the long edges to reinforce and protect the core, and the ends are cut square and finished smooth.

Use it to construct lightweight fire barriers for cavity shaftwalls (1-4 hr.) and area separation fire walls (2-hr.).

Long edges of shaftliner are double beveled to ease installation.

**Sizes:** 1 in. (25.4 mm) thick shaftliner is available in 2 ft. (610 mm) widths and standard lengths of 8 ft. (2,438 mm) to 12 ft. (3,658 mm).
Basic Uses

APPLICATIONS

Use Fire-Shield® Shaftliner in the construction of lightweight fire barriers for cavity shaftwalls (1-4 hr.) and area separation fire walls (2-hr.).

ADVANTAGES

- Approved component in specific UL fire-rated designs.
- Lightweight, cost-efficient material.
- Cuts easily for quick installation.
- The gypsum core will not support combustion or transmit temperatures greatly in excess of 212°F (100°C) until completely calcined, a slow process.
- Dimensionally stable under changes in temperature and relative humidity and resists warping, rippling, buckling and sagging.
- Achieves GREENGUARD and GREENGUARD Gold Certification. GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit: ul.com/gg.
- Qualifies as a low-VOC emitting material by meeting California Specification 01350. For more information, visit: http://www.calrecycle.ca.gov/greenbuilding/specs/section01350/.

Installation Recommendations

GENERAL

Install Fire-Shield Shaftliner consistent with methods described in specific application details for National Gypsum Cavity Shaftwall Systems or Area Separation Fire Wall Systems or other fire-resistance rated designs.

Limitations

- Avoid exposure to excessive or continuous moisture.
- Avoid exposure to extreme temperatures. Do not use Shaftliner in areas that will be exposed to temperatures exceeding 125°F (52°C) for extended periods of time.
- Do not use shaftliner boards in an unlined air-supply duct.
- Isolate shaftliner from contact with building structure in locations where structural movement may impose direct loads on shaftliner assemblies.
# TECHNICAL DATA

## PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Fire-Shield Shaftliner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness¹, Nominal</td>
<td>1&quot; (25.4 mm)</td>
</tr>
<tr>
<td>Width¹, Nominal</td>
<td>2' (610 mm)</td>
</tr>
<tr>
<td>Length¹, Standard</td>
<td>8' – 12' (2,438 – 3,658 mm)</td>
</tr>
<tr>
<td>Weight, Nominal</td>
<td>3.75 lbs. / sq. ft. (18.31 k/m²)</td>
</tr>
<tr>
<td>Edges¹</td>
<td>Double Beveled</td>
</tr>
<tr>
<td>Flexural Strength¹, Perpendicular</td>
<td>≥ 228 lbf. (1,014 N)</td>
</tr>
<tr>
<td>Flexural Strength¹, Parallel</td>
<td>≥ 77 lbf. (343 N)</td>
</tr>
<tr>
<td>Humidified Deflection¹</td>
<td>N/A</td>
</tr>
<tr>
<td>Nail Pull Resistance¹</td>
<td>≥ 87 lbf. (387 N)</td>
</tr>
<tr>
<td>Hardness¹ – Core, Edges and Ends</td>
<td>≥ 11 lbf. (49 N)</td>
</tr>
<tr>
<td>Thermal Resistance¹</td>
<td>R = .83</td>
</tr>
<tr>
<td>Product Standard Compliance</td>
<td>ASTM C1396</td>
</tr>
</tbody>
</table>

## Fire-Resistance Characteristics

| Core Type                                     | Type X                  |
| UL Type Designation                           | FSW                    |
| Combustibility¹                               | Non-combustible Core    |
| Surface Burning Characteristics¹              | Class A                |
| Flame Spread¹                                 | 15                     |
| Smoke Development¹                            | 0                      |

## Applicable Standards and References

- ASTM C840 Standard Specification for Application and Finishing of Gypsum Board
- ASTM C1396 Standard Specification for Gypsum Board
- ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
- Gypsum Association, GA-214, Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels
- Gypsum Association, GA-216, Application and Finishing of Gypsum Panel Products
- Gypsum Association, GA-238, Guidelines for Prevention of Mold Growth on Gypsum Board
- National Gypsum Company, NGC Construction Guide

¹ Specified values per ASTM C1396, tested in accordance with ASTM C473.
² Tested in accordance with ASTM E136.
³ Tested in accordance with ASTM E84.
⁴ Please consult your local sales representative for all non-standard lengths and widths. Minimum order requirements may apply.
⁵ Tested in accordance with ASTM C518.
BASIC COMPONENTS OF AREA SEPARATION WALL

1. 2” C-Track
2. 1” Fire-Shield Gypsum Shaftliner
3. 2” H-Stud
4. 1/2” Fire-Shield C Gypsum Batten

For More Information

ARCHITECTURAL SPECIFICATIONS

National Gypsum Company’s CSI MasterFormat® 3-part guide specifications are downloadable as editable Microsoft® Word documents at: nationalgypsum.com.

LATEST INFORMATION AND UPDATES

For the latest technical information and updates, call NGC Construction Services: 1-800-NATIONAL (628-4662) or visit our website: nationalgypsum.com.