

Manufacturer

Georgia-Pacific Gypsum Georgia-Pacific Canada
 133 Peachtree Street 2180 Meadowvale Boulevard, Suite 200
 Atlanta, GA 30303 Mississauga, ON L5N 5S3

Technical Service Hotline: 1-800-225-6119

Description

ToughRock® Gypsum Sheathing has a moisture-resistant, non-combustible gypsum core. The surfacings on both faces are moisture-resistant recycled paper. 5/8" (15.9 mm) ToughRock® Fireguard X™ Sheathing is UL and ULC classified and can be used in a variety of fire-rated wood and steel-framed assemblies.

Primary Uses

ToughRock Gypsum Sheathing is used as a moisture-resistant substrate that is covered by an exterior finish cladding such as vinyl/fiber cement siding, masonry veneer, or wire lath stucco for use in new building construction or renovation work. It is also used in steel stud curtain wall construction. It is designed for direct mechanical attachment with screws, nails or staples to wood and metal framing.

Limitations

ToughRock Gypsum Sheathing is a limited structural product and shall not be used as a nailing base to support heavy wall-mounted objects or the exterior finish material. Exterior claddings over the sheathing shall be applied with mechanical fasteners through the sheathing into the wall framing.

ToughRock Gypsum Sheathing is not intended for long-term exposure to the weather. Local weather conditions will dictate the length of time sheathing may be left exposed. The sheathing should be covered by an exterior finish cladding or building felt or equivalent protection if weather conditions will be severe during construction.

ToughRock Gypsum Sheathing should not be used where there is prolonged exposure to temperature exceeding 125°F (52°C) and/or continuous exposure to extreme humidity: e.g., located adjacent to wood burning stoves, heating appliances, swimming pools, saunas or steam rooms.

Applicable Standards

ASTM C1396, Section 9, and CSA-A82.27-M and Federal Specification SS-L-30D, Type II, Grade W, X.

Building Code Conformity

ToughRock Gypsum Sheathing conforms to the requirements of major building codes.

Sizes

Thickness, nominal	1/2" (12.7 mm)	5/8" (15.9 mm) Fireguard X
Widths, nominal	4' (1220 mm)	4' (1220 mm)
Lengths, standard	8' (2440 mm)	8' (2440 mm)

Edges

Square

Supplemental Materials

Fasteners: Nails, screws and staples.

Technical Data – Surface Burning Characteristics

Flame spread rating 15 and smoke developed 0, when tested in accordance with ASTM E 84. The core is noncombustible when tested in accordance with ASTM E136.

Fire Resistance Rating

Fire resistance ratings are determined by tests made on assemblies of specific materials. Caution must be used to ensure that each component of the construction design meets the specified and tested assembly. 5/8" (15.9 mm) ToughRock Fireguard X Gypsum Sheathing is UL and ULC classified Type X.

Sound Control

Sound-rated assemblies require sealing at top, bottom, intersections and other penetrations to ensure the effectiveness of the assembly and to obtain desired STC rating.

Installation – Application Standards

ToughRock Gypsum Sheathing shall be installed according to the Gypsum Association Publication GA-253, GA-254, and ASTM C1280.

To achieve a designated fire resistance rating, installation and details must be consistent with tested assemblies as published in the Gypsum Association Fire Resistance Design Manual GA-600 and UL Fire Resistance Directory.

Methods

Appropriate methods of installation are based on the desired fire resistance rating or specified STC value required. These ratings and values require that details of the tested assemblies be followed. In addition to these details, the installation methods outlined in Gypsum Association Publication GA-253, GA-254, and ASTM C1280 will facilitate optimum performance through preferred construction practices.

For non-rated construction, installation methods for single- or multi-layer construction involving attachment using mechanical fasteners are numerous and varied. Refer to Gypsum Association publications for application and installation details.

The installation method selected should be planned carefully to minimize the number of end joints. ToughRock Gypsum Sheathing can be cut by scoring and snapping, working from the face side. All cut edges and ends are smoothed by rasping or other suitable methods to form tight-fitting joints when installed.

Handling and Use – Caution

This product may contain fiberglass which may cause skin irritation. Dust and fibers produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimize contact with skin and eyes. Wear long sleeve shirts, long pants and eye protection. Always maintain adequate ventilation. Use a dust mask or NIOSH/MSHA approved respirator as appropriate in dusty or poorly ventilated areas.

Handling Precautions

Stack ToughRock Gypsum Sheathing flat on a level surface. As individual sheets are removed for installation, they should be raised carefully on edge and carried in a vertical position. Appropriate handling is also outlined in Gypsum Association Publications GA-216 and GA-801. Take care to avoid impact, undue flexing, and subsequent damage to board edges, ends and corners.

Material Safety Data Sheet

Material Safety Data Sheet (MSDS) is available upon request or online at www.buildgp.com/safetyinfo.

continued →

Submittal Approvals

Job Name _____

Contractor _____

Date _____

Table 1

Racking Strength, lbs. per lineal foot (Ultimate – not design value)*	
5/8" (15.9 mm) Thickness, 4' (1220 mm) Wide ²	
Dry	654
Wet	522
Wood framing	2x4 Studs spaced maximum 24" (610 mm) o. c.
Nails	11 gauge, large head, galvanized "roofing type" 1-3/4" (45 mm) long
Nailing schedule	4" (102 mm) o.c. on edges and ends, 7" (178 mm) o.c. in field
Metal framing	Studs spaced maximum 24" (610 mm) o.c.
Screws	Bugle head fine point drywall screw 1-1/4" (32 mm) long
Screw schedule	Drywall screws spaced 8" (204 mm) o.c. along framing

* Tests were conducted per ASTM E72.

Note: Shear design in metal framing will depend on the type, gauge and bracing criteria of the exterior wall design and the composite. Contribution of gypsum sheathing is usually not calculated.

Physical Properties

Properties	1/2" (12.7 mm) ToughRock® Sheathing	5/8" (15.9 mm) ToughRock® Fireguard X™ Sheathing
Thickness, nominal inches ³	1/2" (12.7 mm), ± 1/32" (0.8 mm)	5/8" (15.9 mm), ± 1/32" (0.8 mm)
Width, nominal ³	4' (1220 mm), – 1/8" (3 mm)	4' (1220 mm), – 1/8" (3 mm)
Length, standard ³	8' (2440 mm) ± 1/4" (6.4 mm)	8' (2440 mm) ± 1/4" (6.4 mm)
Weight ¹ , lbs./sq. ft. nominal (kg/m ²)	1.7 (9)	2.2 (11)
Edges	Square	Square
Surfacing	Moisture-resistant, recycled paper face, back and long edges	Moisture-resistant, recycled paper face, back and long edges
Flexural strength ³ , min.		
Parallel, lbf. (N) Method B	≥36 (160)	≥46 (205)
Perpendicular, lbf. (N) Method B	≥107 (476)	≥147 (654)
R Value ²	0.45 (0.079)	0.48 (0.085)
Nail Pull Resistance ³ , minimum, lbf. (N)	≥77 (343)	≥87 (387)
Hardness, lbf. (N) (core, edges and ends) ³	≥15 (67)	≥15 (67)
Packaging	Two pieces per bundle, face to face & end taped	Two pieces per bundle, face to face & end taped
Humidified Deflection ³	10/8" (32 mm)	5/8" (15.9 mm)
Permeance, perms ⁶ (ng/Pa•s•m ²)	27 (1600)	25 (1400)
Surface Burning Characteristics ⁴ (per ASTM E84)		
Flame Spread	15	15
Smoke Developed	0	0
	(The core is noncombustible when tested in accordance with ASTM E136.)	
Framing Spacing, maximum	Walls: 24" (610 mm) o.c.	Walls: 24" (610 mm) o.c.
Water Absorption, % maximum	10.0	10.0

¹ Represents approximate weight for design and shipping purposes. Actual weight may vary depending on manufacturing location and other factors.

² Per Gypsum Association document GA-235.

³ Specified minimum values are as defined in ASTM C1396.

⁴ Products qualify for NFPA Class A or IBC Class 1.

⁵ Surface Burning Characteristics per ASTM E84.

⁶ Per Gypsum Association document GA-235.



U.S.A. Georgia-Pacific Gypsum LLC
Georgia-Pacific Gypsum II LLC
Canada Georgia-Pacific Canada LP

SALES INFORMATION AND ORDER PLACEMENT

U.S.A. West: **1-800-824-7503**
Midwest: **1-800-876-4746**
South Central: **1-800-231-6060**
Southeast: **1-800-327-2344**
Northeast: **1-800-947-4497**

CANADA Canada Toll Free: **1-800-387-6823**
Quebec Toll Free: **1-800-361-0486**

TECHNICAL INFORMATION

U.S.A. and Canada: **1-800-225-6119**, www.gpgypsum.com

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