

# GOLD BOND® BRAND e<sup>2</sup>XP™ EXTENDED EXPOSURE SHEATHING

## MANUFACTURER

National Gypsum Company  
2001 Rexford Road  
Charlotte, NC 28211  
(704) 365-7300

Technical Information:  
1-800-NATIONAL  
(1-800-628-4662)

Fax: 1-800-FAX NGC1  
(1-800-329-6421)

Internet Home Page:  
nationalgypsum.com  
nationalgypsum.com/espanol

Internet Product Page:  
www.purplechoice.info

06 16 43/NGC BuyLine: 1100

## DESCRIPTION

e<sup>2</sup>XP Sheathing is a moisture and mold resistant gypsum panel designed for attachment to the outside of sidewall and soffit framing as a water resistant underlayment for various exterior materials. e<sup>2</sup>XP Sheathing is manufactured with an enhanced moisture and mold resistant core and facer. The facer is composed of a coated fiberglass mat which provides superior weather resistant capabilities. It is produced in 1/2" and 5/8" thicknesses, 4' wide in 8', 9' and 10' lengths. e<sup>2</sup>XP Sheathing is lightweight, scores and cuts easily and is specially coated on the front, back and sides for easy handling.

## BASIC USES

e<sup>2</sup>XP Sheathing can be used in both wood and metal stud construction to provide fire resistance, weather protection and to add to structural strength. e<sup>2</sup>XP Sheathing can be used as a substrate for various air and water resistive barriers including building wraps, self-adhesive membranes and liquid applied coatings. It can be used as a component in curtainwall or Exterior Insulated Finish Systems (EIFS), and under various exterior finishes such as metal, vinyl, wood or fiber-cement siding; brick/stone veneer, or conventional stucco. The 5/8" e<sup>2</sup>XP Fire-Shield® Type X gypsum panel can be utilized for exterior fire-rated wall and soffit assemblies.

## ADVANTAGES

- Manufactured to meet ASTM C 1177 (*Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing*).
- Will withstand up to 12 months of exposure to typical weather conditions, subject to the terms, conditions and exclusions of National Gypsum's Limited Warranties.
- Treated fiberglass face, back and gypsum core provides extra protection against mold growth per ASTM D3273.\*
- Superior water resistance which does not impede vapor transmission.
- Dimensionally stable under changes in temperature and relative humidity and resists warping, rippling, buckling and sagging for a flat and even substrate.
- Noncombustible material.
- No special tools or fasteners required for installation.
- Approved for inclusion in specific UL fire-rated designs.
- Can be scored and snapped to the exact size without sawing.
- Coated face and back for easy handling.

- Ideally suited for soffit applications.
- Suitable for radius applications.

## \*MOLD AND MILDEW RESISTANCE

e<sup>2</sup>XP Sheathing was designed to provide extra protection against mold and mildew compared to standard gypsum board products. When tested by an independent lab per ASTM D 3273 (*Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber*), e<sup>2</sup>XP Sheathing achieved a score of 10, the best possible score for this test. No material can be considered "mold-proof," nor is it certain that any material will resist mold or mildew indefinitely. When used in conjunction with good design, handling and construction practices, e<sup>2</sup>XP Sheathing can provide increased mold resistance versus standard gypsum board products. As with any building material, avoiding water exposure during handling, storage and installation, and after installation is complete, is the best way to avoid the formation of mold or mildew.

## LIMITATIONS

- e<sup>2</sup>XP Sheathing is not a finished surface nor is it a substrate for the direct application of joint compound, stucco, paint or textures in wall applications.
- All materials used in conjunction with e<sup>2</sup>XP Sheathing should be installed per the manufacturer's recommendations.
- e<sup>2</sup>XP Sheathing should never be used as a nailing base. Mechanical fasteners should pass through the sheathing and engage the framing member behind the panel.
- e<sup>2</sup>XP Sheathing is resistant to weather, but it is not intended for immersion in water and should not be subjected to cascading water conditions.
- Do not apply e<sup>2</sup>XP Sheathing below grade. Always follow building code grade clearance requirements.
- e<sup>2</sup>XP Sheathing should be protected from the elements and maintained in reasonable condition prior to installation. Boards should be stacked flat with care taken to prevent sagging or damage to edges, ends and surfaces. Following installation, the structure must

(Continued next page)

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_ Date \_\_\_\_\_

Submittal Approvals: (Stamps or Signatures)

be adequately maintained by the contractor and/or building owner.

- Do not laminate e<sup>2</sup>XP Sheathing to masonry surfaces, fasten to furring strips or framing.
- e<sup>2</sup>XP Sheathing is not intended for tile applications. For tile applications, PermaBase® BRAND Cement Board is recommended.
- e<sup>2</sup>XP Sheathing is not a replacement for structurally engineered sheathings required for racking qualities, and should not be used in lieu of plywood when required.
- e<sup>2</sup>XP Sheathing application to framing by adhesive only is not recommended.
- Stud spacing must not exceed 24" o.c.
- All design details such as fasteners, sealants and control joints, per system specifications, must be properly installed. Openings and penetrations must be properly flashed and sealed according to code, building design and weather resistive barrier manufacturer's instructions. Failure to do so will void the warranty. (See e<sup>2</sup>XP Sheathing Warranty for terms, conditions and limitations.)

## COMPOSITION & MATERIALS

e<sup>2</sup>XP Sheathing is manufactured with a moisture and mold resistant core and facer. The facer is composed of a coated fiberglass mat which provides superior weather resistant capabilities. e<sup>2</sup>XP Fire-Shield® Exterior Sheathing (Type X) has special additives in the core to enhance its fire-resistive properties.

e<sup>2</sup>XP Sheathing contains no asbestos.

## SIZES AND TYPES

Fire-Shield:

*Width:* 4' (1219 mm)  
*Lengths:* 8', 9' and 10' (2438 mm, 2743 mm and 3048 mm)  
*Thickness:* 1/2" Regular (12.7 mm)  
 5/8" Fire-Shield (15.9 mm)

*Edges:* Square

## APPLICABLE STANDARDS

ASTM Specification C 1177 and applicable sections of C 1396.

## TECHNICAL DATA

PHYSICAL PROPERTIES	1/2" e <sup>2</sup> XP	5/8" e <sup>2</sup> XP
Nominal Width	4'	4'
Standard Lengths	8', 9', 10' ± 1/4"	8', 9', 10' ± 1/4"
Nominal Weight, lbs./msf	1,900	2,500
Bending Radius	6' <sup>1</sup>	8' <sup>1</sup>
Composition	Coated fiberglass mat/gypsum core	
Racking Strength <sup>2</sup> , lbs./ft.(dry) (Ultimate - not design value)	>540	>654
Flexural Strength <sup>3</sup> , parallel, lbs. (4' weak direction)	80 <sup>4</sup>	100 <sup>4</sup>
Compressive Strength	Min. 500 psi	Min. 500 psi
Humidified Deflection <sup>3</sup> , inches	1/8"	1/8" <sup>5</sup>
Permeance <sup>6</sup> (perms) [ng/Pa•s•m <sup>2</sup> ]	22[1260]	19[1090]
"R" Value <sup>7</sup>	0.43	0.50
Combustibility <sup>8</sup>	Noncombustible	Noncombustible
Linear Expansion with Moisture Change in./in./% R.H.	6.25 x 10 <sup>-6</sup>	6.25 x 10 <sup>-6</sup>
Flame Spread, E84	5	5
Coefficient of Thermal Expansion <sup>9</sup> in./in./°F	9.26 x 10 <sup>-6</sup>	9.26 x 10 <sup>-6</sup>
Resists Growth of Mold <sup>10</sup>	Yes	Yes
Handling Characteristic	Scores with utility knife and snaps easily	
Fasteners	Standard	Standard

1. Double fasteners on ends as needed
2. Tested in accordance with ASTM E 72
3. Tested in accordance with ASTM C 473
4. Minimum requirements for ASTM C 1177
5. Maximum requirements for ASTM C 1396 and ASTM C 1177
6. Tested in accordance with ASTM E 96 (dry cup method)
7. Tested in accordance with ASTM C 518 (heat flow meter)
8. As defined and tested in accordance with ASTM E 136
9. Tested in accordance with ASTM E 228
10. Tested in accordance with ASTM D 3273

## FIRE RESISTANCE RATINGS

The 5/8" e<sup>2</sup>XP Fire-Shield Sheathing is tested in accordance with ASTM Standard E 119 and is classified as Type X for use in UL Listings.

- Framing members shall not vary more than 1/8" from the plane of the faces of adjacent framing.
- Fasteners should be driven flush with the panel surface (not countersunk) and into the framing. Locate fasteners at least 3/8" from the ends and edges of the sheathing. For wood studs: Nails should be galvanized, 11 gauge, 7/16" head, 1-3/4" long. Screws should be 1-1/4" bugle head, corrosion resistant Type W for wood and Type S for steel. Use appropriate fasteners for attaching e<sup>2</sup>XP Sheathing to framing.
- Install e<sup>2</sup>XP Sheathing with end joints staggered on horizontal applications. Ends and edges of the sheathing should fit snugly.
- The location of control joints shall be as required by either the building design or the manufacturer of the specified exterior material.

## INSTALLATION

### APPLICABLE STANDARDS AND REFERENCES

ASTM C 1280

Gypsum Association GA-253

### RECOMMENDATIONS

- e<sup>2</sup>XP Sheathing must be installed in accordance with Gypsum Association document GA-253, ASTM C 1280 or National Gypsum Co. *Gypsum Construction Guide*.
- e<sup>2</sup>XP Sheathing can be attached parallel or perpendicular to wood or metal framing. Use appropriate board orientation for specific fire assemblies and shear wall applications as required by the design.

## JOINT TREATMENT

e<sup>2</sup>XP Sheathing is compatible with a variety of exterior systems. For applications requiring joint treatment, joint finishes must be compatible with the exterior system specified. Consult your weather/water resistant barrier manufacturer, cladding manufacturer or local building code authority to determine the appropriate joint treatment.

## DECORATION - Soffit and Ceiling applications only

Embed 2" wide fiberglass mesh tape in ProForm® BRAND Sta-Smooth® Setting Compound, or equivalent, over all joints. Once dry, apply a skim coat of Sta-Smooth Setting Compound, or equivalent, over the panels to achieve a uniform, smooth finish over the entire area. Prime with exterior grade primer and finish with two coats of exterior grade paint.

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Excellence Across The Board