Gold Bond® BRAND Hi-Impact® XP® Gypsum Board
National Gypsum Company
Drop In Specification Language

*(**Specifier Note**: The purpose of this guide specification language is to assist the specifier in correctly specifying high impact resistant gypsum board products and their installation. The specifier needs to edit these guide specifications to fit the needs of each specific project. Contact National Gypsum Company to assist in appropriate product selections.*

*The language provided is not adequate as a complete stand-alone specification section. Recommended section numbers and titles where this information may be included: **Section 09 21 16 - Gypsum Board Assemblies** or **Section 09 29 00 Gypsum Board**. Language that the specifier may elect to include in each of the 3-Parts has been provided. Article numbering is only for navigating this document and language should be incorporated into the appropriate Article heading in the Section.*

Impact resistant gypsum board products may be used in a single layer application or a multi-layered wall assembly - EDIT the installation requirements accordingly.

Specifier Notes included in (italicized red text) are included to provide assistance in selecting appropriate text for inclusion in a Specification. [**Bold text**] *indicates a selection is required. Text in the brackets may not be the only options available, but are recommended or common selections.)*

PART 1 - GENERAL

1.1 PERFORMANCE CRITERIA

*(**Specifier Note**: Classifications levels are identified in ASTM C 1629. Hi-Impact BRAND XP Gypsum Board as manufactured by National Gypsum Company meet or exceed the performance criteria for Abuse Resistant Gypsum Board.)*

A. Abuse Resistant Classification:

1. Surface Abrasion: Level 1-3
2. Surface Indention: Level 1
3. Soft Body Impact: Level 2-3
4. Hard Body Impact: Level 2-3

B. Wall Assembly Fire-Resistance Rating: **[Non-rated] [1-Hour] [1-1/2-Hour] [2-Hour] [3-Hour] [4-Hour]**

*(**Specifier Note**: STC rating may not be of importance for specific project and may be omitted form specification in which case there the default required by the building code will dictate.)*

C. Wall Assembly STC: **[40] [44] [47] [52]**

1.2 SUBMITTALS

*(**Specifier Note**: GREENGUARD certification is optional, visit www.greenguard.org for program information. DELETE paragraph and sub-paragraphs below if not project specific.)*

A. GREENGUARD Submittal:

*(**Specifier Note**: Products that have achieved GREENGUARD Children and Schools Certification meet stricter emission guidelines than those with GREENGUARD Indoor Air Quality Certification. GREENGUARD Children and Schools Certification also meet CHPS Low-Emitting Materials.)*

1. Product Certificate for GREENGUARD Children & Schools: For products and materials required to comply with requirements for minimum chemical emissions

PART 2 - PRODUCTS

2.1 MANUFACTURER/PRODUCTS

A. High Impact Gypsum Board

*(**Specifier Note**: Maintain brand name when proprietary specification is acceptable. Use generic term when project must be competitively bid. CONFIRM product requirements and characteristics prior to listing products of other manufacturers.)*

*(**Specifier Note**: Abuse Resistant gypsum board should be specified in applications where there is a need to provide additional surface protection from scuffs, scratches and dents. Impact Resistant gypsum board should be specified for applications where impact damage is a concern. Both comply with the fire resistance requirements for Type X gypsum board.)*

1. Basis of Design: National Gypsum Company; Gold Bond Hi-Impact® BRAND XP® Gypsum Board

2.2 IMPACT RESISTANT GYPSUM BOARD

A. Description

1. Core: Type X gypsum core, with additives to enhance fire resistance, surface indentation resistance and impact resistance, moisture and mold resistant
2. Surface paper: Abrasion resistant, 100% recycled content moisture/mold/mildew resistant paper on front, back and long edges
3. Embedded fiberglass mesh
4. Long Edges: Tapered
5. Overall thickness: 5/8 inch

B. Panel Physical Characteristics

*(**Specifier Note**: First option in [ ] provide the minimum/maximum requirements in accordance with the ASTM test methods. Second option indicates the propriety characteristics of National Gypsum Co, Hi-Impact XP Gypsum Board. SELECT appropriate values for inclusion in Specification.)*

1. Panel complies with requirements of both ASTM C 1396, Type X and ASTM C 630
2. Surface Abrasion Resistance: **[0.126 inch, maximum] [0.009 inch]** when tested in accordance with ASTM D 4977 Standard Test Method for Granule Adhesion to Mineral Surfaced Roofing by Abrasion
3. Indentation Resistance: **[0.150 inch, maximum] [0.114 inch]** when tested in accordance with ASTM D 5420 Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact)
4. Soft Body Impact: **[195 ft-lbf, minimum] [540 ft-lbf]** when tested in accordance with ASTM E 695 Standard Method for Measuring Relative Resistance of Wall, Floor, and Roof Construction to Impact Loading
5. Hard Body Impact: **[100 ft-lbf, minimum] [160 ft-lbf]** in accordance with ASTM C 1629 Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels

*(**Specifier Note**: National Gypsum Co, Hi-Impact XP Gypsum Board has the following mold/mildew resistance characteristics. VERIFY conformance of this requirement when specification section must provide products of equivalent design or DELETE when characteristic is not critical.)*

6. Mold/Mildew Resistance: 10 when tested in accordance with ASTM D 3273Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

*(**Specifier Note**: DELETE paragraph below if environmental requirement is not project specific.)*

7. Environmental Requirements: Provide products that comply with testing and product requirements for low emitting materials

*(**Specifier Note**: Acoustical sealant and firestopping putty packs may be specified in other Sections, COORDINATE location of information so that it is not duplicated.)*

PART 3 - EXECUTION

3.1 HIGH IMPACT GYPSUM BOARD INSTALLATION

A. General

1. Install in accordance with manufacturer recommendations

*(**Specifier Note**: EDIT installation requirements dependent on wall construction assembly. INCORPORATE only specification language that is project specific.)*

B. Single Layer - 3-5/8 inch metal stud construction (1-hr rated; STC 40 or 44)

*(**Specifier Note**: To achieve fire-resistance and STC ratings, metal framing must be minimum 20 ga. steel, spaced 16 inches on center. To obtain the STC 44, requires installation of 2-1/2 inch glass fiber acoustic blanket insulation in the stud cavity. COORDINATE spacing of framing, and inclusion of glass-fiber insulation with the related drawings and specification sections. Wall assembly based on UL Design number U465 or V438.)*

1. Apply **[impact resistant Type X gypsum board] [Hi-Impact XP Gypsum Board]** vertically to each side of metal framing with fasteners 8 inches on center at edges and 12 inches on center in the field of the board
2. Stagger vertical joint on each side of wall

C. Unbalanced - 3-5/8 inch metal stud construction *(1-1/2-Hour rated; STC 47)]*

*(**Specifier Note**: To achieve fire-resistance and STC ratings, metal framing must be minimum 20 ga, steel spaced 16 inches on center. To obtain the STC 47, requires installation of 2-1/2 inch glass-fiber acoustic blanket insulation in the stud cavity. COORDINATE spacing of framing, and inclusion of glass-fiber insulation with the related drawings and specification sections. Wall assembly based on Gypsum Association Design File No. WP1052.)*

1. Apply **[impact resistant Type X gypsum board] [Hi-Impact XP Gypsum Board]** vertically to one side of metal studs using 1-inch Type S screws, 12 inches on center. Apply face layer of **[Type X gypsum board] [Fire-Shield Type X Gypsum Board]** vertically using 1-5/8 inch Type S screws, 12 inches on center.
2. Opposite side: Apply **[Type X gypsum board] [Fire-Shield Type X Gypsum Board]** gypsum board vertically using 1-inch Type S screws, 12 inches on center
3. Stagger vertical joints 24 inches each layer and opposite sides

D. Double Layer - 3-5/8 inch metal stud construction *(2-Hour rated; STC 52)*

*(**Specifier Note**: To achieve fire-resistance and STC ratings, metal framing must be minimum 20 ga steel, spaced 16 inches on center. To obtain the STC 52, requires installation of 2-1/2 inch glass-fiber*

acoustic blanket insulation in the stud cavity. COORDINATE spacing of framing, and inclusion of glass-fiber insulation with the related drawings and specification sections. Wall assembly based on on UL Design number U411 or V438. V438 is a National Gypsum Company proprietary assembly.)

1. Apply **[[Type X gypsum board] [Fire-Shield Gypsum Board]] [[impact resistant gypsum board] [Hi-Impact Gypsum Board]]** vertically to one side of metal studs using 1-inch Type S screws, 16 inches on center. Apply face layer of **[impact resistant gypsum board] [Hi-Impact Gypsum Board]** vertically using 1-5/8 inch Type S screws, 16 inches on center, with screws offset 8 inches from the first layer.
2. Stagger vertical joints 16 inches each layer and opposite sides