SECTION 09 29 00 – GYPSUM BOARD, 5/8 in. (15.9 mm) USG Sheetrock® Brand EcoSmart Panels Firecode 30® (UL Type FC30)

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| **Sustainability Notes:** (Architecture 2030 Challenge for Products – LEED® v4 EPD/LCA improvements) |
| * USG Sheetrock® Brand EcoSmart Panels Firecode 30® (UL Type FC30) are formulated and manufactured using the most sustainable method to date   + Up to 25% less global warming potential (GWP)1   + Up to 30% less weight reduces transportation fuel energy by up to 20%   + Living Building Challenge™ Red List Free   + Contain 100% USDA certified biobased content   + Up to 97.3% recycled content (regionally available)   + Achieved GREENGUARD Gold Certification and qualify as a low VOC emitting material  (meets CA 01350)   + USGBC® LEED® v4 **–** may assist in achieving additional credits * Developed to meet the Architecture 2030 Challenge for Products, USG Sheetrock® Brand EcoSmart Panels  Firecode 30® (UL Type FC30) have lower carbon dioxide emissions than standard Type X gypsum board. These values are defined by the Gypsum Association’s Type III EPD per ISO 14040 for North American  gypsum board.  |  |  | | --- | --- | | **Gypsum Panel** | **CO2 eq. (kg CO2/1000 sq. ft.)** | | **USG Sheetrock® Brand EcoSmart Panels Firecode 30®**  **(per EPD 218)** | **207** | | GA Industry Average **–** Standard 5/8 in. (15.9 mm) Type X | 277 |   1. Compared to standard 5/8 in. (15.9 mm) Type X gypsum panels as presented in the Gypsum Association’s *5/8 in. (15.9 mm) Type X  Conventional Gypsum Board Environmental Product Declaration* (EPD 10270). |

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| **Product Summary:** |
| * Sustainable and ultralightweight 5/8 in. (15.9 mm) panels for interior wall and ceiling applications * Feature an innovative noncombustible gypsum core encased in 100% recycled face and back papers that form a high strength-to-weight ratio composite design * Comply with ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) and non-Type X gypsum wallboard * Underwriters Laboratories Inc. (UL) Classification as to fire resistance (30-minute and 1-hour fire-rated walls), surface-burning characteristics and noncombustibility * Offer comparable strength and sag resistance to standard 5/8 in. (15.9 mm) Type X * Can be used in any UL Design in which Type FC30 panels are listed * For more information, refer to product submittal sheet WB2858 or usg.com |

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| **Note to Specification Writers:** |
| * This document is not intended to function as a standalone specification. It is intended to assist the specifier in inserting the proper language into the following recommended specification sections: 09 29 00 – GYPSUM BOARD. * This product is manufactured at USG gypsum panel plants, reducing distances and carbon footprint for transport. * Panels shall be installed in accordance with GA-216, *Specifications for the Application and Finishing of  Gypsum Panel Products* and ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*. * Contact USG at800.874.4968 for technical questions. |

PART 2 – GYPSUM PANEL PRODUCTS

* + - 1. SUSTAINABLE NON-TYPE X GYPSUM PANEL
         1. ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) and non-Type X gypsum wallboard

Basis of Design: Subject to compliance with project requirements, the design is based on the following: United States Gypsum Company, USG Sheetrock® Brand EcoSmart Panels Firecode 30®

ISO 14040 Environmental Management, Life Cycle Assessment, Principles and Framework:

Carbon emissions per Gypsum Association; Industry Standard Type III EPD   
for North American Type X wallboard have a Global Warming Potential value   
of 277 CO2 eq.: **207 kg CO2/1000 sq. ft.**

Primary energy from non-renewable resources per Gypsum Association; Industry Standard Type III EPD for North American Type X wallboard have a value of 4,100 MJ/1000 sq. ft.: **3,730 MJ/1000 sq. ft.**

UL Type Designation: “FC30”

ASTM E136 Noncombustibility: Meets

ASTM E84 Surface-Burning Characteristics

Flame Spread: 15

Smoke Developed: 0

Class A (Flame spread not greater than 25 and smoke developed not greater than 450): Meets

ASTM C473, *Standard Test Methods for Physical Testing of Gypsum Panel Products*

Core Hardness

Field [Not less than 11 lbf (49 N)]: Meets

End [Not less than 11 lbf (49 N)]: Meets

Edge [Not less than 11 lbf (49 N)]: Meets

Flexural Strength

Parallel [Not less than 46 lbf (205 N)]: Meets

Perpendicular [Not less than 147 lbf (654 N)]: Meets

Nail Pull Resistance [Not less than 87 lbf (387 N)]: Meets

Humidified Deflection [Not greater than 5/8 in. (15.9 mm)]: Meets

Thickness: 5/8 in. (15.9 mm)

Length: 8-16 ft. (2438-4877 mm)

Width: 4 ft. (1219 mm)

Weight: 1.7 lb./sq. ft. (8.3 kg/sq. m.)

Edge: Tapered

Shear Value for Wood-Frame; Screws, 8 in. (203 mm) OC perimeter, 12 in. (305 mm) OC field: 75 plf

Shear Value for Wood-Frame; Nails, 4 in. (102 mm) OC perimeter, 7 in. (178 mm) OC field: 127 plf

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