



**Project:**

**SUBMITTAL COVER SHEET**

**Arch. Project No:** \_\_\_\_\_

**MNC Project No:** \_\_\_\_\_

**To:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**From:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Attn.** \_\_\_\_\_  
\_\_\_\_\_

**Sent Via** \_\_\_\_\_

**General Contractor's Review:**

*M Natal Contractor, Inc.*

**CONTRACTOR'S REVIEW:**

SUBMITTAL NO: \_\_\_\_\_

NO EXCEPTIONS TAKEN

SPEC. SEC. NO: \_\_\_\_\_

FURNISH AS CORRECTED

VENDOR/SUB: \_\_\_\_\_

REJECTED; RESUBMIT

DESCRIPTION: \_\_\_\_\_

PARTIAL APPROVAL; SUBMIT ADD'L ITEM(S)

Reviewing is for conformance with the design concept of the project and compliance with the information given in the Contract Documents. The Vendor/Subcontractor is responsible for dimensions to be confirmed and correlated at the site for information that pertains solely to the fabrication process or to the means, method, technician, sequences, and procedures of construction; and for coordination of the work with all trades.

BY \_\_\_\_\_ DATE: \_\_\_\_\_

**Architect/Engineer Review:**

**Product Category:** structural metal stud framing: specification section 05 40 00  
**Available Coatings:** G60 (standard), G90.  
**Product Name:** 1-1/2 CRC 16      **Product Description:** cold-rolled channel (CRC)  
**AISI Nomenclature:** 150U050-54      Also available in ¾" and 2" depths

**Material and Shape Property Notes:**

**Thickness:** 0.0566" (design); 0.0538 (minimum); 54 mil • Equivalent Gauge: 16  
**Flange width:** ½ inch • **Web Depth:** available in ¾", 1.5", and 2" web • **Stiffening Lip Length:** n/a

**SECTION PROPERTIES**

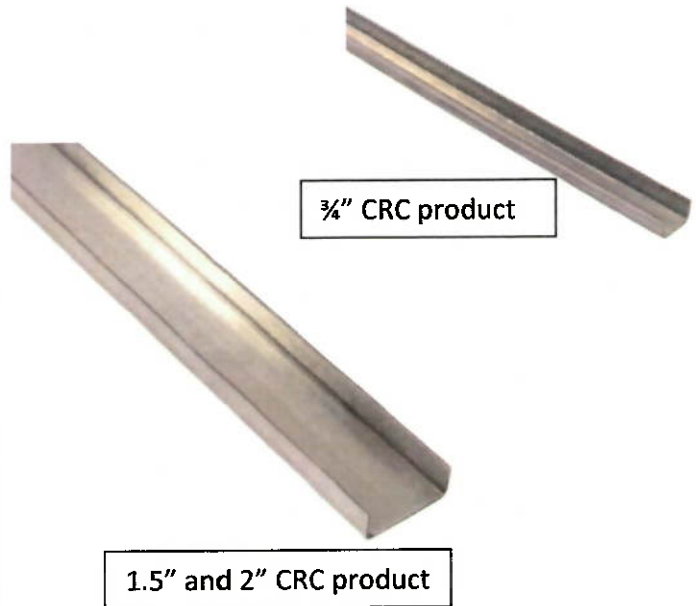
**Gross Section Properties:** (for 1-1/2" product)

Cross Section Area (A): 0.130 in<sup>2</sup>  
Member Weight: 0.441 pounds per foot  
Moment of Inertia, strong axis (I<sub>x</sub>): 0.039 in<sup>4</sup>  
Radius of Gyration, strong axis (R<sub>x</sub>): 0.549 in.  
Moment of Inertia, weak axis (I<sub>y</sub>): 0.003 in<sup>4</sup>  
Radius of Gyration, weak axis (R<sub>y</sub>): 0.146 in.

**Effective Section Properties:**<sup>1</sup>

Effective Moment of Inertia (I<sub>x eff</sub>): 0.039 in<sup>4</sup>  
Effective Section Modulus (S<sub>x eff</sub>): 0.052 in<sup>3</sup>  
Allowable Moment (Ma): 1.230 inch-kips

For torsional properties, see our catalog at [www.buysuperstud.com](http://www.buysuperstud.com).



**CODES & STANDARDS**

Super Stud products comply with the applicable provisions of the following:

- International Building Code (IBC) 2006 - 2015
- Sheet Steel: ASTM A1003 & ASTM A653
- Galvanized Coating: ASTM A653
- Members & Tolerances: ASTM C955
- Meets ASTM C754 & C1007 when installed in structure
- 3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



<sup>1</sup> Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100.)

**The Super Stud Building Products Family of Companies**

**Product Category:** Nonstructural Metal Stud Framing: Specification Section 09 22 00  
**Available Coatings:** G40 (standard); G60, or G90  
**Product Name:** 358EDS20P **Product Description:** The EDGE™ Performance 20  
**AISI Nomenclature:** n/a

### Material and Shape Property Notes:

**Thickness:** Design: 19 mils / Minimum: 0.0179 in • Equivalent Gauge: 20  
**Flange width:** 1-1/4" • **Web Depth:** 3-5/8" • **Stiffening Lip Length:** 0.350 for The EDGE™ rolled flange

## SECTION PROPERTIES

### Gross Section Properties:

Cross Section Area (A): 0.1202 in<sup>2</sup>  
Member Weight: 0.422 pounds per foot  
Moment of Inertia, strong axis (I<sub>x</sub>): 0.2397 in<sup>4</sup>  
Radius of Gyration, strong axis (R<sub>x</sub>): 1.412 in.  
Moment of Inertia, weak axis (I<sub>y</sub>): 0.0211 in<sup>4</sup>  
Radius of Gyration, weak axis (R<sub>y</sub>): 0.4189 in.

### Effective Section Properties:<sup>[1]</sup>

Effective Moment of Inertia (I<sub>x eff</sub>): 0.2278 in<sup>4</sup>  
Effective Section Modulus (S<sub>x eff</sub>): 0.1001 in<sup>3</sup>  
Allowable Moment (Ma): 3297 inch-pounds

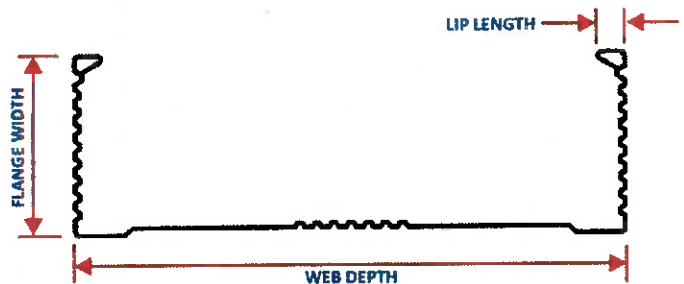
For torsional properties, see our EDGE™ catalog at [www.buysuperstud.com](http://www.buysuperstud.com).



## CODES & STANDARDS

Super Stud products comply with the applicable provisions of the following:

International Building Code (IBC) 2006 - 2015  
Sheet Steel: ASTM A1003 & ASTM A653  
Galvanized Coating: ASTM A653  
Members & Tolerances: ASTM C645  
Meets ASTM C754 when installed properly in structure  
UL designs: U419, V438, V498  
3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100). In some cases, effective properties are based on testing in accordance with International Code Council Evaluation Service (ICC-ES) Acceptance Criteria AC86.

## The Super Stud Building Products Family of Companies



COMPOSITE LIMITING HEIGHTS (feet – inches) for 358EDS20P

Deflection →	5 PSF			7.5 PSF			10 PSF		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12 in. o.c.	22-7f	19-3	17-0	18-6f	16-10	14-10	16-0f	15-4	13-6
16 in. o.c.	19-7f	17-6	15-5	16-0f	15-4	13-6	13-10f	13-10f	12-3
24 in. o.c.	16-0f	15-5	13-6	13-1f	13-1f	11-9	11-4f	11-4f	10-4

Tabulated values are based on at least one layer of ½" gypsum wallboard attached each face full height. See The EDGE™ catalog at [www.buysuperstud.com](http://www.buysuperstud.com) for additional information and table notes. Allowable limiting heights are calculated using the methodology in International Code Council Evaluation Service (ICC-ES) Acceptance Criteria AC86-2010. Gypsum board must be installed in accordance with ASTM C754.

Dash (-) indicates values not reported.

'f' adjacent to the height value indicates that flexural stress controls the allowable wall height. 's' adjacent to the height value indicates that shear/end reaction controls the allowable wall height. No "f" or "s" adjacent to the height value indicates deflection controls the allowable wall height.

SUSTAINABLE CONSTRUCTION INFORMATION

All Super Stud Building Products, Inc. steel materials have **as a minimum** the following recycled contents:

- Post-consumer: 19.8%
- Pre-Consumer: 14.4%
- Total: 25.2%

Many products have higher values; check with Super Stud Technical Services for additional recycling information. All Super Stud steel products are 100% recyclable.

For Leadership in Energy and Environmental Design (LEED) Version 4: Super Stud has provided information on our

product life cycle inputs for development of Product Category Rules (PCRs) and our industry-wide Environmental Product Declaration (EPD). Once the PCRs are finalized and the industry EPD is published by the cold-formed steel industry, Super Stud will coordinate and provide this to our customers. Note that LEED V4 no longer provides points for recycled content or local sourcing. Check [www.buysuperstud.com](http://www.buysuperstud.com) for the latest status of LEED® V4 documentation.

Company-Wide Environmental Stewardship

Super Stud supports the programs of the United States Green Building Council (USGBC), and employs a full-time LEED® Accredited Professional (A.P.) on staff. Our primary manufacturing facility has in-house recycling of both manufacturing and office waste, and encourages alternative transportation by being located near transit facilities and having bicycle storage and shower facilities for commuters. We have facilities for and encourage rail delivery of steel rather than trucked-in product for reduced transportation emissions, and maintain our own fleet of trucks for efficient delivery of our finished products. Incentive programs are in place to encourage employees and customers to conserve energy and natural resources: at home, at work, and in our communities.



The Super Stud Building Products Family of Companies



**Product Category:** Nonstructural Metal Stud Framing: Specification Section 09 22 00  
**Available Coatings:** G40 (standard); G60, or G90  
**Product Name:** 600EDS20P **Product Description:** The EDGE™ Performance 20  
**AISI Nomenclature:** n/a

### Material and Shape Property Notes:

**Thickness:** Design: 19 mils / Minimum: 0.0179 in • Equivalent Gauge: 20  
**Flange width:** 1-1/4" • **Web Depth:** 6" • **Stiffening Lip Length:** 0.350 for The EDGE™ rolled flange  
Web-depth to thickness ratio exceeds 260.

## SECTION PROPERTIES

### Gross Section Properties:

Cross Section Area (A): 0.1649 in<sup>2</sup>  
 Member Weight: 0.560 pounds per foot  
 Moment of Inertia, strong axis (I<sub>x</sub>): 0.7970 in<sup>4</sup>  
 Radius of Gyration, strong axis (R<sub>x</sub>): 2.199 in.  
 Moment of Inertia, weak axis (I<sub>y</sub>): 0.0238 in<sup>4</sup>  
 Radius of Gyration, weak axis (R<sub>y</sub>): 0.3802 in.

### Effective Section Properties:<sup>[1]</sup>

Effective Moment of Inertia (I<sub>x eff</sub>): 0.7083 in<sup>4</sup>  
 Effective Section Modulus (S<sub>x eff</sub>): 0.1803 in<sup>3</sup>  
 Allowable Moment (Ma): 5937 inch-pounds

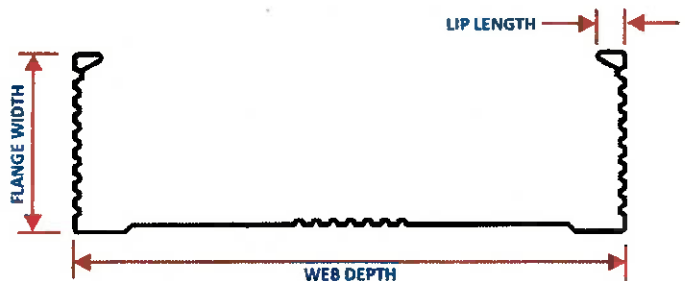
*For torsional properties, see our EDGE™ catalog at [www.buysuperstud.com](http://www.buysuperstud.com).*



## CODES & STANDARDS

*Super Stud products comply with the applicable provisions of the following:*

- International Building Code (IBC) 2006 - 2015
- Sheet Steel: ASTM A1003 & ASTM A653
- Galvanized Coating: ASTM A653
- Members & Tolerances: ASTM C645
- Meets ASTM C754 when installed properly in structure
- UL designs: U419, V438, V498
- 3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100). In some cases, effective properties are based on testing in accordance with International Code Council Evaluation Service (ICC-ES) Acceptance Criteria AC86.

## The Super Stud Building Products Family of Companies





COMPOSITE LIMITING HEIGHTS (feet – inches) for 600EDS20P

Deflection →	5 PSF			7.5 PSF			10 PSF		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12 in. o.c.	30-0f	26-11	23-6	24-6f	23-6	20-7	21-3f	21-3f	18-8
16 in. o.c.	26-0f	24-6	21-5	21-3f	21-3f	18-8	18-5f	18-5f	15-8
24 in. o.c.	21-3f	21-3f	18-8	17-4f	17-4f	16-4	15-0f	15-0f	14-9

Tabulated values are based on at least one layer of 1/2" gypsum wallboard attached each face full height. See The EDGE™ catalog at [www.buysuperstud.com](http://www.buysuperstud.com) for additional information and table notes. Allowable limiting heights are calculated using the methodology in International Code Council Evaluation Service (ICC-ES) Acceptance Criteria AC86-2010. Gypsum board must be installed in accordance with ASTM C754.

Dash (-) indicates values not reported.

'f' adjacent to the height value indicates that flexural stress controls the allowable wall height. 's' adjacent to the height value indicates that shear/end reaction controls the allowable wall height. No "f" or "s" adjacent to the height value indicates deflection controls the allowable wall height.

SUSTAINABLE CONSTRUCTION INFORMATION

All Super Stud Building Products, Inc. steel materials have **as a minimum** the following recycled contents:

- Post-consumer: 19.8%
- Pre-Consumer: 14.4%
- Total: 25.2%

Many products have higher values; check with Super Stud Technical Services for additional recycling information. All Super Stud steel products are 100% recyclable.

For Leadership in Energy and Environmental Design (LEED) Version 4: Super Stud has provided information on our



product life cycle inputs for development of Product Category Rules (PCRs) and our industry-wide Environmental Product Declaration (EPD). Once the PCRs are finalized and the industry EPD is published by the cold-formed steel industry, Super Stud will coordinate and provide this to our customers. Note that LEED V4 no longer provides points for recycled content or local sourcing. Check [www.buysuperstud.com](http://www.buysuperstud.com) for the latest status of LEED® V4 documentation.

Company-Wide Environmental Stewardship

Super Stud supports the programs of the United States Green Building Council (USGBC), and employs a full-time LEED® Accredited Professional (A.P.) on staff. Our primary manufacturing facility has in-house recycling of both manufacturing and office waste, and encourages alternative transportation by being located near transit facilities and having bicycle storage and shower facilities for commuters. We have facilities for and encourage rail delivery of steel rather than trucked-in product for reduced transportation emissions, and maintain our own fleet of trucks for efficient delivery of our finished products. Incentive programs are in place to encourage employees and customers to conserve energy and natural resources: at home, at work, and in our communities.



The Super Stud Building Products Family of Companies



## 3-5/8" EDGE Performance 20 (19 mil) EQ

**Product Category:** Nonstructural Metal Stud Framing: **Specification Section:** 09 22 16

**Available Coatings:** G40 (standard); or G60 or G90 **Yield Strength:** 40 ksi

**Product Name:** 3-5/8" EDGE Performance TR

**AISI Nomenclature:** 362T125-19

**Product Description:** 3-5/8 inch 20 gauge track member with 1-3/16 inch flanges

### Material and Shape Property Notes:

Thickness: Design: 0.0188" • Minimum: 0.0179" • Designation: 19 mil • Equivalent Gauge: 20  
 Flange width: 1-3/16" + 1/8" hem • Web Depth: 3-5/8"

### Section Properties:

#### Gross Section Properties:

Cross Section Area (A): 0.1204 in<sup>2</sup>  
 Member Weight: 0.4094 pounds per foot  
 Moment of Inertia, strong axis (I<sub>x</sub>): 0.2478 in<sup>4</sup>  
 Radius of Gyration, strong axis (R<sub>x</sub>): 1.4345 in.  
 Moment of Inertia, weak axis (I<sub>y</sub>): 0.0150 in<sup>4</sup>  
 Radius of Gyration, weak axis (R<sub>y</sub>): 0.3524 in.

#### Effective Section Properties:<sup>[1]</sup>

Effective Section Modulus (S<sub>x eff</sub>): 0.1056 in<sup>3</sup>  
 Allowable Bending Moment (M<sub>a</sub>): 2.5304 inch-kips  
 Gross Allowable Shear (V<sub>a</sub>): 0.2267 kips

#### Torsional Properties:

St. Venant Torsional Constant (J x 1000): 0.0142 in<sup>4</sup>  
 Warping Constant (C<sub>w</sub>): 0.0428 in<sup>6</sup>  
 Polar Radius of Gyration (R<sub>p</sub>): 1.5822 in  
 Distance from shear center (X<sub>o</sub>): -0.5667 in  
 Beta (β): 0.8717

### Codes & Standards:

*Super Stud products comply with the applicable provisions of the following:*

International Building Code (IBC) 2006 - 2015

Sheet Steel: ASTM A1003 & ASTM A653

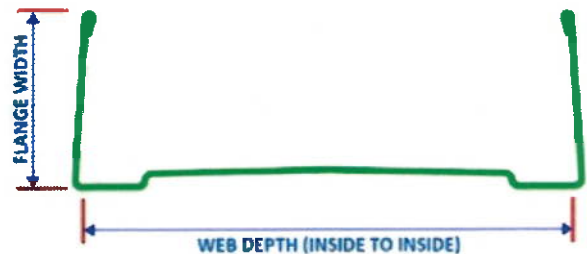
Galvanized Coating: ASTM A653

Members & Tolerances: ASTM C645

Meets ASTM C754 when installed properly in structure

UL designs: U419, V438, V498

3<sup>rd</sup> Party Certification: Manufacturing verified & inspected  
 by Home Innovation Research Labs, Inc.



*Note: All EDGE Tracks in 15 mil, 19 mil, and 23 mil thicknesses come with 1-3/16" flanges and a 1/8" hem.*

## 6" EDGE Performance 20 Track (19 mil) EQ

**Product Category:** Nonstructural Metal Stud Framing; **Specification Section:** 09 22 16  
**Available Coatings:** G40 (standard); or G60 or G90 **Yield Strength:** 40 ksi  
**Product Name:** 6" EDGE Performance 20 TR **AISI Nomenclature:** 600T125-19  
**Product Description:** 6 inch 20 gauge track member with 1-3/16 inch flanges

### Material and Shape Property Notes:

Thickness: Design: 0.0188" • Minimum: 0.0179" • Designation: 19 mil • Equivalent Gauge: 20  
 Flange width: 1-3/16" + 1/8" hem • Web Depth: 6"

### Section Properties:

#### Gross Section Properties:

Cross Section Area (A): 0.1651 in<sup>2</sup>  
 Member Weight: 0.5612 pounds per foot  
 Moment of Inertia, strong axis (I<sub>x</sub>): 0.8110 in<sup>4</sup>  
 Radius of Gyration, strong axis (R<sub>x</sub>): 2.2167 in.  
 Moment of Inertia, weak axis (I<sub>y</sub>): 0.0163 in<sup>4</sup>  
 Radius of Gyration, weak axis (R<sub>y</sub>): 0.3144 in.

#### Effective Section Properties:<sup>[1]</sup>

Effective Section Modulus (S<sub>x eff</sub>): 0.1828 in<sup>3</sup>  
 Allowable Bending Moment (M<sub>a</sub>): 4.3794 inch-kips  
 Gross Allowable Shear (V<sub>a</sub>): 0.1417 kips

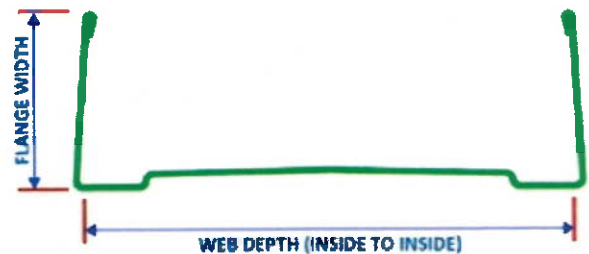
#### Torsional Properties:

St. Venant Torsional Constant (J x 1000): 0.0194 in<sup>4</sup>  
 Warping Constant (C<sub>w</sub>): 0.1269 in<sup>6</sup>  
 Polar Radius of Gyration (R<sub>o</sub>): 2.2817 in  
 Distance from shear center (X<sub>o</sub>): -0.4401 in  
 Beta (β): 0.9628

### Codes & Standards:

Super Stud products comply with the applicable provisions of the following:

- International Building Code (IBC) 2006 - 2015
- Sheet Steel: ASTM A1003 & ASTM A653
- Galvanized Coating: ASTM A653
- Members & Tolerances: ASTM C645
- Meets ASTM C754 when installed properly in structure
- UL designs: U419, V438, V498
- 3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



Note: All EDGE Tracks in 15 mil, 19 mil, and 23 mil thicknesses come with 1-3/16" flanges and a 1/8" hem.

**Product Category:** Structural Metal Stud Framing: Specification Section 05 40 00  
**Available Coatings:** G60 (standard); or G90  
**Product Name:** 3-5/8SSJ16  
**Product Description:** 3-5/8 inch 16 gauge stud/joist member with 1-5/8 inch flanges

**Yield Strength:** 50 ksi  
**AISI Nomenclature:** 362S162-54

**Material and Shape Property Notes:**

Thickness: Design: 0.0566" • Minimum: 0.0538" • Designation: 54 mil • Equivalent Gauge: 16  
Flange width: 1-5/8" • Web Depth: 3-5/8" • Stiffening Lip Length: 1/2"

**SECTION PROPERTIES**

**Gross Section Properties:**

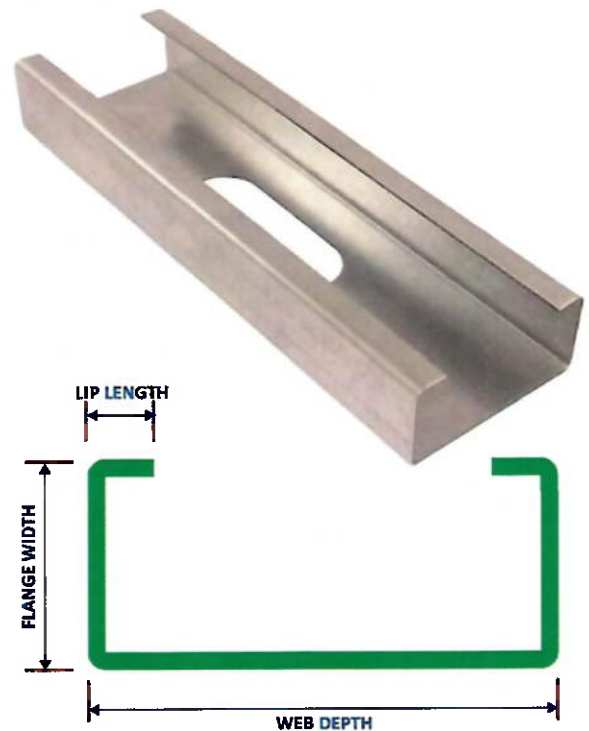
Cross Section Area (A): 0.429 in<sup>2</sup>  
Member Weight: 1.460 pounds per foot  
Moment of Inertia, strong axis (I<sub>x</sub>): 0.884 in<sup>4</sup>  
Radius of Gyration, strong axis (R<sub>x</sub>): 1.436 in.  
Moment of Inertia, weak axis (I<sub>y</sub>): 0.162 in<sup>4</sup>  
Radius of Gyration, weak axis (R<sub>y</sub>): 0.615 in.

**Effective Section Properties:**<sup>[1]</sup>

Effective Section Modulus (S<sub>x eff</sub>): 0.479 in<sup>3</sup>  
Allowable Bending Moment (M<sub>a</sub>): 14.346 inch-kips  
Gross Allowable Shear (V<sub>a</sub>): 3.417 kips

**Torsional Properties:**

St. Venant Torsional Constant (J x 1000): 0.458 in<sup>4</sup>  
Warping Constant (C<sub>w</sub>): 0.496 in<sup>6</sup>  
Polar Radius of Gyration (R<sub>p</sub>): 2.070 in  
Distance from shear center (X<sub>o</sub>): -1.358 in  
Beta (β): 0.570 Flat web to thickness ratio (h/t): 59.046



**CODES & STANDARDS**

Super Stud products comply with the applicable provisions of the following:

- International Building Code (IBC) 2006 - 2015
- Sheet Steel: ASTM A1003 & ASTM A653
- Galvanized Coating: ASTM A653
- Members & Tolerances: ASTM C955
- Meets ASTM C1007 when installed properly in structure
- 3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100).

**The Super Stud Building Products Family of Companies**



**Product Category:** Structural Metal Stud Framing: Specification Section 05 40 00

**Available Coatings:** G60 (standard); or G90

**Yield Strength:** 50 ksi

**Product Name:** 12SSJ18

**AISI Nomenclature:** 1200S162-43

**Product Description:** 12 inch 18 gauge stud/joist member with 1-5/8 inch flanges

**Material and Shape Property Notes:**

Depth to thickness exceeds 260.

Thickness: Design: 0.0451" • Minimum: 0.0428" • Designation: 43 mil • Gauge: 18  
Flange width: 1-5/8" • Web Depth: 12" • Stiffening Lip Length: 1/2"

**SECTION PROPERTIES**

**Gross Section Properties:**

Cross Section Area (**A**): 0.717 in<sup>2</sup>

Member Weight: 2.439 pounds per foot

Moment of Inertia, strong axis (**I<sub>x</sub>**): 12.672 in<sup>4</sup>

Radius of Gyration, strong axis (**R<sub>x</sub>**): 4.203 in.

Moment of Inertia, weak axis (**I<sub>y</sub>**): 0.174 in<sup>4</sup>

Radius of Gyration, weak axis (**R<sub>y</sub>**): 0.493 in.

**Effective Section Properties:**<sup>[1]</sup>

Effective Section Modulus (**S<sub>x eff</sub>**): 1.549 in<sup>3</sup>

Allowable Bending Moment (**M<sub>a</sub>**): 25.567 inch-kips

Gross Allowable Shear (**V<sub>a</sub>**): 0.555 kips

**Torsional Properties:**

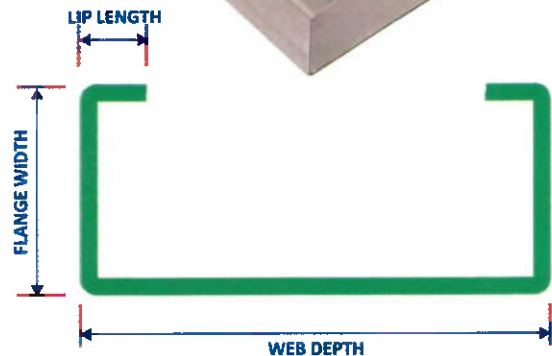
St. Venant Torsional Constant (**J x 1000**): 0.441 in<sup>4</sup>

Warping Constant (**C<sub>w</sub>**): 4.982 in<sup>6</sup>

Polar Radius of Gyration (**R<sub>p</sub>**): 4.508 in

Distance from shear center (**X<sub>o</sub>**): -0.736 in

Beta (**β**): 0.971 Flat web to thickness ratio (**h/t**): 261



**CODES & STANDARDS**

Super Stud products comply with the applicable provisions of the following:

International Building Code (IBC) 2006 - 2015

Sheet Steel: ASTM A1003 & ASTM A653

Galvanized Coating: ASTM A653

Members & Tolerances: ASTM C955

Meets ASTM C1007 when installed properly in structure

3<sup>rd</sup> Party Certification: Manufacturing verified & inspected  
by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100).

**The Super Stud Building Products Family of Companies**



**Product Category:** Structural Metal Stud Framing: Specification Section 05 40 00  
**Available Coatings:** G60 (standard); or G90  
**Product Name:** 12TR18  
**Product Description:** 12 inch 18 gauge track member with 1-1/4 inch flanges

**Yield Strength:** 33 ksi  
**AISI Nomenclature:** 1200T125-43

**Material and Shape Property Notes:**

Depth to thickness exceeds 260.

Thickness: Design: 0.0451" • Minimum: 0.0428" • Designation: 43 mil • Gauge: 18  
Flange width: 1-1/4" • Web Depth: 12"

**SECTION PROPERTIES**

**Gross Section Properties:**

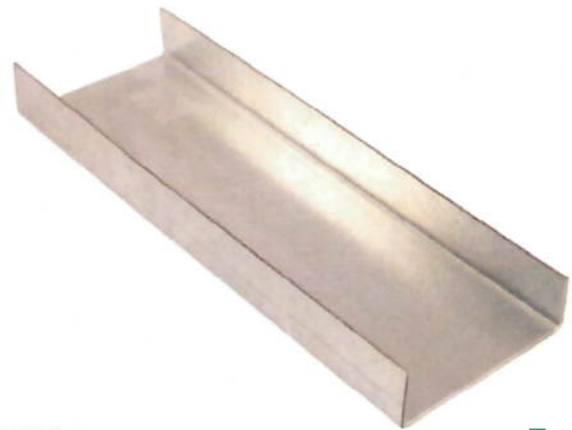
Cross Section Area (A): 0.654 in<sup>2</sup>  
Member Weight: 2.222 pounds per foot  
Moment of Inertia, strong axis (I<sub>x</sub>): 10.615 in<sup>4</sup>  
Radius of Gyration, strong axis (R<sub>x</sub>): 4.030 in.  
Moment of Inertia, weak axis (I<sub>y</sub>): 0.049 in<sup>4</sup>  
Radius of Gyration, weak axis (R<sub>y</sub>): 0.273 in.

**Effective Section Properties:**<sup>[1]</sup>

Effective Section Modulus (S<sub>x eff</sub>): 0.999 in<sup>3</sup>  
Allowable Bending Moment (M<sub>a</sub>): 16.481 inch-kips  
Gross Allowable Shear (V<sub>a</sub>): 0.547 kips

**Torsional Properties:**

St. Venant Torsional Constant (J x 1000): 0.443 in<sup>4</sup>  
Warping Constant (C<sub>w</sub>): 1.452 in<sup>6</sup>  
Polar Radius of Gyration (R<sub>p</sub>): 4.054 in  
Distance from shear center (X<sub>o</sub>): -0.339 in  
Beta (β): 0.993 Flat web to thickness ratio (h/t): 266



**CODES & STANDARDS**

Super Stud products comply with the applicable provisions of the following:

- International Building Code (IBC) 2006 - 2015
- Sheet Steel: ASTM A1003 & ASTM A653
- Galvanized Coating: ASTM A653
- Members & Tolerances: ASTM C955
- Meets ASTM C1007 when installed properly in structure
- 3<sup>rd</sup> Party Certification: Manufacturing verified & inspected by Home Innovation Research Labs, Inc.



[1] Where "NC" appears, the effective properties have not been calculated, due to limits in the American Iron and Steel Institute (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100).

**The Super Stud Building Products Family of Companies**





## EcoBatt® with ECOSE® Technology

Product-Data-Sheet

### Description

Performance+ EcoBatt is a cost-effective solution for thermal and acoustical insulation, ideal for energy-efficient construction. It is suitable for both new builds and retrofits, with applications in wood and metal frame structures across residential, commercial, and manufactured housing projects. For areas with limited space where optimal thermal performance is required, High Density (HD) batts are available. Additionally, the Staple-Free batt insulation offers flangeless kraft-faced batts that friction-fit securely, between 16" on center wood studs, eliminating the need for staples.

### Application

Interior and exterior walls, partition walls, floors, ceilings, attics, basements and crawlspaces

### Specification Compliance

- ASTM C665 (facing);
  - Type I, Class A, (Unfaced)
  - Type II, Class C, Category 1 (Kraft)
  - Type III, Class A, Category 1 (FSK-2.5 foil)
  - Type III, Class B, Category 1 (Foil)
- California Energy Commission
- MEA #498-90-M
- State of Minnesota

Contractor: \_\_\_\_\_

Job: \_\_\_\_\_

Date: \_\_\_\_\_

### Indoor Air Quality

- **asthma & allergy friendly®**
- Verified Healthier Air™
- UL Environment
  - GREENGUARD Certified
  - GREENGUARD Gold Certified
  - Validated to be Formaldehyde-Free
- EUCEB Certified

### Certifications



## Technical Data

Property (Unit)	Test	Performance
Corrosion	ASTM C1617	Pass
Thermal Value	ASTM C518	See Forms Available chart
Water Vapor Permeance	ASTM E96	Kraft Faced: 1.0 perms or less; FSK-25 and Foil Faced: 0.05 perms
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Combustibility	ASTM E136	Non-combustible (unfaced only)
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84	Unfaced and flamed-rated FSK facings: 25/50 Kraft facing will burn and should not be left exposed.

## Forms Available

R-Value	Thickness	Unfaced	Kraft	FSK-25	Standard Foil	Staple-Free
R-11	3½"	11", 15¼", 19", 23¼"	15", 23"	-	-	-
R-13	3½"	11", 15", 23"	11", 15", 23"	-	-	15¼"
R-15 HD	3½"	15", 23"	15", 23"	-	-	15¼"
R-19	6¼"	12", 15", 15¼", 19", 23¼"	11", 15", 19", 23"	-	-	15¼"
R-20	5½"	15"	15"	-	-	-
R-21 HD	5½"	15", 23"	15", 23"	-	-	15¼"
R-22	6½"	23"	15"	-	-	-
R-23 HD	5½"	15"	-	-	-	-
R-25	8"	16", 24"	15", 23"	-	-	-
R-30	10"	16", 19¼", 24"	16", 19", 24"	-	-	-
R-30 HD	8¼"	15", 23"	15", 23"	-	-	-
R-38	12"	16", 19¼", 24"	16", 19", 24"	-	-	-
R-38 HD	10¼"	15", 23"	15", 23"	-	-	-
R-49	13¾"	16", 24"	16", 19", 24"	-	-	-
<b>Metal Frame Construction</b>						
R-8	2½"	16", 24"	-	-	-	-
R-11	3½"	16", 24"	16", 24"	-	-	-
R-13	3½"	16", 24"	16", 24"	16"	16"	-
R-15 HD	3½"	16"	-	-	-	-
R-19	6¼"	12", 16", 24"	16", 24"	16", 24"	16", 24"	-
R-21 HD	5½"	16", 24"	16"	16"	-	-
R-22	6½"	16", 24"	-	-	-	-
R-30	10"	-	-	24", 24" E.F.	-	-
R-38	10¼" 12"	24"	-	24"	-	-
<b>Manufactured Housing Rolls</b>						
R-7	2¼"	15", 16" 42", 48", 90", 96"	-	-	-	-
R-11	3½"	15", 48", 72", 84", 90", 96"	15"	-	-	-
R-13	3½"	15"	15"	-	-	-
R-19	6¼"	15", 48", 91½"	15", 23"	-	-	-

HD = High Density, E.F. = Extended Flange

This table is meant as a quick reference guide as product availability varies by region.

Please check with your Territory Manager for a full product offering in your region.

## Acoustical Performance

Performance+ EcoBatt provides excellent acoustical properties and will reduce sound transmission when properly installed in partition walls and acoustical ceiling and floor systems. Knauf acoustical/thermal insulation can improve STC ratings in wood stud construction by 3 to 5 points and metal stud construction by 8 to 10 points depending upon the complexity of the wall configurations, R-values and layers of insulation.

## Fiberglass and Mold

Fiberglass insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated. Carefully inspect any insulation that has been exposed to water. If it shows any sign of mold, it must be discarded. If the material is wet, but shows no evidence of mold, it should be dried rapidly and thoroughly. If it shows signs of facing degradation from wetting, it should be replaced.

## Sustainability

Knauf products with ECOSE® Technology are made using our patented, bio-based binder - a smarter alternative to the phenol/formaldehyde (PF) binder traditionally used in fiberglass products. The bio-based binder holds our product together, gives the product its unique appearance and makes it formaldehyde-free. All of our products contain some raw materials from sustainable resources, such as recycled glass. And we're proud to be putting glass bottles back to work rather than into landfills. Our products are made with a minimum of 50% recycled glass.

STC Ratings				
	With insulation	No insulation	With Insulation	No Insulation
<b>Wood Frame, 2 x 4 (3½" – 4" Batt), 16" O.C.</b>	<b>(½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
Single studs/Single layer gypsum	38	35	38	34
Single studs/Resilient channel	47	39	50	40
Staggered studs/Single layer gypsum	49	39	51*	43
Double stud walls/Single layer gypsum	57	46	56	45
<b>Steel Frame (2½" studs) (2½" – 2<sup>5</sup>/<sub>8</sub>" Batt), 25 gauge, 24" O.C.</b>	<b>(with ½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
Single layer gypsum	45	36	47	39
Double layer gypsum one side/Single layer gypsum other side	50	39	52	44
Double layer both sides	54	45	57	48
<b>Steel Frame (3 ⅝" studs) (3½" – 4" Batt), 25 gauge, 24" O.C.</b>	<b>(with ½" gypsum wallboard both sides)</b>		<b>(with ⅝" Type X gypsum wallboard both sides)</b>	
Single layer gypsum	47	39	50	39
Double layer gypsum one side/Single layer gypsum other side	52	43	55	47

\*STC reflects two 2 ½" thick fiberglass batts used

Additional Assemblies	STC
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer one side, double layer other side, resilient channel	55
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, double layer both sides, resilient channel	57
Wood frame, 2 x 4 staggered studs (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer both sides	52
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides	40
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides, resilient channel	52

Check with your Knauf Insulation Territory Manager to ensure information is current.

The chemical and physical properties of this product represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. References to numerical flame spread ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

Consult with or follow local building and energy codes to determine appropriate R-values and need for and placement of a vapor retarder.

### Knauf Insulation, Inc.

One Knauf Drive  
Shelbyville, IN 46176

### Technical Support

Phone: (317) 398-4434 Option 6

[info.us@knaufinsulation.com](mailto:info.us@knaufinsulation.com)

[www.knaufnorthamerica.com](http://www.knaufnorthamerica.com)

This product is covered by one or more U.S. and/or other patents.  
See patent [www.knaufnorthamerica.com/patents](http://www.knaufnorthamerica.com/patents)

© 2024 Knauf Insulation, Inc.

# USG RADAR™ ACOUSTICAL PANELS

CLIMAPLUS™ PERFORMANCE



USG Radar™ Acoustical Panels  
with ClimaPlus™ Performance, and  
USG Donn® Brand DX® Acoustical  
Suspension System

TO ORDER SAMPLES, GO TO [USG.COM](http://USG.COM) OR [CGCINC.COM](http://CGCINC.COM)

#### STANDARD COLORS



#### ADVANTAGE COLORS



#### FEATURES AND BENEFITS

- Nondirectional pattern.
- High-durability panels are 55% more durable than standard panels.
- USDA Certified Biobased Product.<sup>11</sup>
- ClimaPlus™ 30-year limited system warranty against visible sag, mold and mildew.
- Optional Firecode® product designed to meet life-safety codes.

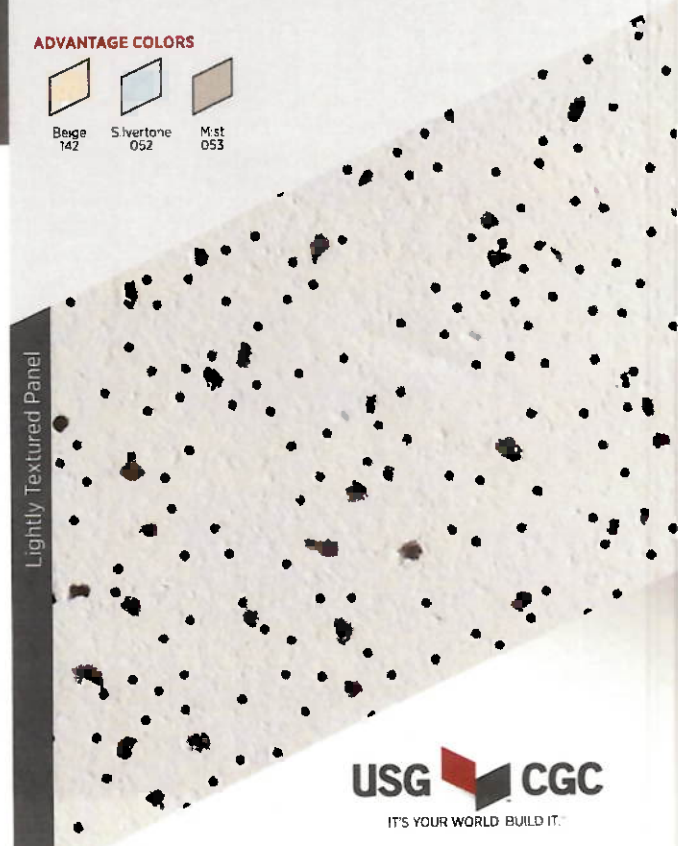
#### APPLICATIONS

- Schools
- Corridors
- Lobby Areas
- Offices
- Retail Stores

#### SUBSTRATE

- Wet-formed Mineral Fiber

Lightly Textured Panel



# USG RADAR™ ACOUSTICAL PANELS

CLIMAPLUS™ PERFORMANCE

ORDER SAMPLES/LITERATURE  
 USG: usg.com or samplrt@usg.com  
 CGC: contact Sales Representative

TECHNICAL SERVICES  
 800 USG 4YOU (874-4968)

FOR MOST UP-TO-DATE  
 TECHNICAL INFORMATION  
 AND LEED REPORT TOOL  
 usgdesignstudio.com  
 cgcdesignstudio.com  
 usg.ecomedes.com



## USG RADAR™ PANELS



## USG RADAR™ HIGH-DURABILITY PANELS

## USG RADAR™ TILE<sup>7,8</sup>

Edge	Panel Size Imperial Metric (mm)	Fire Rating <sup>2,12</sup>	Item No. Imperial Metric (mm)	NRC	CAC Min.	LR <sup>3</sup>	Color <sup>5,6,13</sup>	Grid Options	VOC Emissions	Anti-Mold & Mildew/Sag Resistance	Abuse Resistant	Recycled Content <sup>1</sup>	Panel Cost
SQ	2'x2'x5/8"	Class A	2210	0.55	33	0.84	White, Standard Beige, Mist, Silvertone	A,B	Low	Green	Black	38-46%	\$
	2'x2'x5/8"		2215	0.55	35	0.84	White	C,D	Low	Green	Black	56-65%	\$
	2'x4'x5/8" 600x1200x15	Class A	2410 ME2410	0.55	35	0.84	White, Standard Beige, Mist, Silvertone	A	Low	Green	Black	38-46%	\$
	2'x4'x5/8"		2415	0.55	35	0.84	White	C	Low	Green	Black	56-65%	\$
	2'x2'x5/8" 600x600x15	Class A	2220 ME2220	0.55	33	0.84	White, Standard Beige, Mist, Silvertone (Flat Black or Charcoal Not Available)	E	Low	Green	Black	37-46%	\$
	2'x2'x5/8"		2225	0.55	35	0.84	White	F	Low	Green	Black	59-65%	\$
	2'x4'x5/8"	Class A	2420	0.55	35	0.84	White	E	Low	Green	Black	37-46%	\$
	2'x4'x5/8"		2425	0.55	35	0.84	White	F	Low	Green	Black	59-65%	\$
FLB	2'x2'x5/8"	Class A	2230	0.55	33	0.84	White	G,H,I,J	Low	Green	Black	37-46%	\$
	2'x2'x5/8"		2235	0.55	35	0.84	White	K,L	Low	Green	Black	59-65%	\$
SQ	2'x2'x5/8"	Class A	2207	0.55	35	0.84	White	A,B	Low	Green	Black	38%	\$
	2'x4'x5/8"	Class A	2407	0.55	35	0.84	White	A	Low	Green	Black	38%	\$
SLT	2'x2'x5/8"	Class A	2227	0.55	35	0.84	White	E	Low	Green	Black	38%	\$
SF	12"x12"x5/8"	Class A	2570	0.45	35	0.84	White	Adhesive Staple	Low	Green	Black	56%	\$\$\$

**Low Emissions (VOC)**  
 Third party (GREENGUARD Gold) certified for low-emitting performance, meets California Department of Public Health's (CDPH) Standard Method v1.2 - 2017 (CA Section 01350). 'Certificates of Compliance' for Low VOC Emissions are available on usg.ecomedes.com and at spot.ul.com.

**ClimaPlus™ Warranty Performance<sup>4</sup>**  
 Contains a broad-spectrum antimicrobial additive on the face and back of the panel that provides resistance against the growth of mold and mildew. Includes sag-resistance performance.

**High Recycled Content**  
 USG classifies High Recycled Content as greater than 50%. Total recycled content is based on product composition of pre-consumer (post-industrial) and post-consumer recycled content per FTC guidelines.

**Firecode<sup>9</sup>**  
**Abuse Resistant**

## GRID PROFILE OPTIONS

A USG DX <sup>6</sup>	B <sup>10</sup> USG Centricitee™ DXT™	C USG DXL™	D USG Centricitee™ DXLT™	E USG DX <sup>6</sup>	F USG DXL™	G USG Centricitee™ DXT™	H USG Fineline™ DXF™	I USG Fineline™ 1/8 DXFF™	J USG Identitee™ DXT™	K USG Centricitee™ DXLT™	L USG Fineline™ DXLF™

## PHYSICAL DATA/ FOOTNOTES

**Product literature**  
 Data sheet: SC2127

**ASTM E1264 classification**  
 ASTM E1264-22 Type III, Form 2, Pattern C & E  
 ASTM E1264-23 Type A, Form A1.2, Pattern C & E

**ASTM E84 and CAN/ULC S102 surface-burning characteristics**  
 Class A  
 Flame spread: 25 or less  
 Smoke developed: 50 or less

**UL Type**  
 FR-83

**Weight**  
 0.60-1.11 lb./sq. ft.

**Online tools**  
 usgdesignstudio.com, cgcdesignstudio.com or usg.ecomedes.com

**Thermal resistance**  
 R-1.4 (5/8" Class A panels and tile)  
 R-1.6 (Firecode<sup>9</sup> panels)

**Maximum backloading**  
 See USG 30-Year Limited System Warranty Commercial Applications (SC2102).

**Maintenance**  
 Can be cleaned easily with a soft brush or vacuum.

**High-durability panels**  
 ASTM D1037—falling-ball impact test.

**Metric sizes available**  
 Contact sales for minimum quantities and lead times.

### Notes

- For details, see USG Sustainability tool at usgdesignstudio.com or cgcdesignstudio.com.
- Firecode<sup>9</sup> products are approved for use in fire-resistance rated UL designs, where the designs allow for the UL Type Designation.
- LR values are shown as averages.
- For details, see USG 30-Year Limited System Warranty Commercial Applications (SC2102).
- Metric available in White only.
- See Colors selector for more information.
- SF = staple flange.
- Not UL Classified for acoustics.
- High recycled content not available at all plants.
- Maximum 2'x2' with SQ edge panels.
- This product has achieved both BioPreferred initiatives: Federal Procurement Preference and Certified Product Labeling. See the complete listing of all USG ceiling panels on biopreferred.gov website.
- It is not recommended to mix Firecode<sup>9</sup> with Class A panels in the same ceiling plane.
- Specification is only applicable for White panels.

**Notice**  
 The information in this document is subject to change without notice. CGC Inc. or USG Corp. assumes no responsibility for any errors that may inadvertently appear in this document.

SC2127/rev. 7-24  
 © 2024 USG Corporation and/or its affiliates. All rights reserved.  
 Printed in USA

Manufactured by USG Interiors, LLC  
 550 West Adams Street  
 Chicago IL 60661

The trademarks USG, CGC, CENTRICITEE, CLIMAPLUS, DONN, DX, DXF, DXFF, DXI, DXL, DXLF, DXLT, DXT, DXW, FINELINE, FIRECODE, IDENTITEE, RADAR, IT'S YOUR WORLD, BUILD IT, the USG/CGC logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

**Safety First!** Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and install on.



# USG DONN® BRAND DX®/DXL™ ACOUSTICAL SUSPENSION SYSTEM



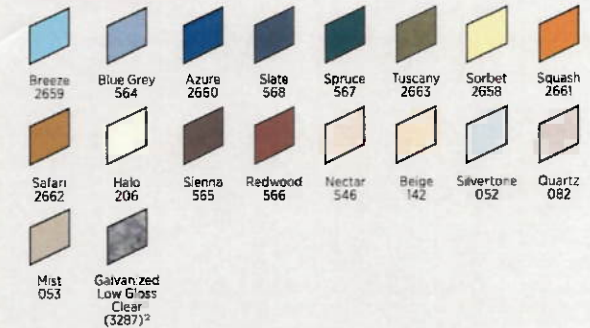
USG Donn® Brand DX®/DXL™  
Acoustical Suspension System/  
USG Eclipse™ Acoustical Panels

TO ORDER SAMPLES, GO TO [USG.COM](http://USG.COM) OR [CGCINC.COM](http://CGCINC.COM)

### STANDARD COLORS\*



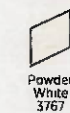
### ADVANTAGE COLORS\*



### PREMIUM COLORS



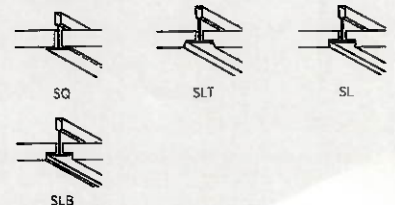
### POWDER-COATED FINISH



### PROFILE



### EDGE DETAIL



### FEATURES AND BENEFITS

- 15/16" exposed tee system. Components for use in general and fire-rated applications.
- Maximum economy and design simplicity.
- Compatible with USG Logix™ Integrated Ceiling System.
- USG DXL™ system features more than 80 UL designs (up to three hours).
- Cross-tee override-ends resist twisting and give a professionally finished look.
- Meets or exceeds all national code requirements, including seismic.
- Proprietary Quick-Release™ cross tees.
- High recycled content (HRC) available.
- Custom colors available.
- ICC-ES evaluated for seismic installations (ESR-1222).
- USG Donn® Brand DX™/DXL™ Acoustical Suspension System is part of the Ecoblueprint™ portfolio — meeting today's sustainability standards. For sustainability documentation go to [USG.com](http://USG.com) or [CGCInc.com](http://CGCInc.com).

### APPLICATIONS

- Fire-rated Interior General-use Areas
- USG Logix™ Integrated System

# USG DONN® BRAND DX®/DXL™ ACOUSTICAL SUSPENSION SYSTEM

ORDER SAMPLES/LITERATURE  
USG: usg.com or samplrt@usg.com  
CGC: contact Sales Representative

FOR MOST UP-TO-DATE  
TECHNICAL INFORMATION  
AND LEED REPORT TOOL  
usgdesignstudio.com  
cgcdesignstudio.com  
usg.ecomedes.com

TECHNICAL SERVICES  
800 USG.4YOU (874-4968)



Declare® Labels on select finishes, see usg.ecomedes.com for more details and documentation.

## 15/16" TEE SYSTEM® Main Tee



## Cross Tee 1"



## Cross Tee 1-1/2"



## MOLDING



ASTM Class	Length	Height	Item No.	Fire Rating <sup>3</sup>	Color <sup>4,5</sup>	Seismic Design Category <sup>1,2</sup>		Rated Load <sup>6</sup>		
						IBC	ICC-ES Evaluated Installation	4' Hanger Spacing	5' Hanger Spacing	6' Hanger Spacing <sup>8</sup>
Intermediate Duty	12' 3600 mm	USG 1.64" (42 mm)	DX24	Class A	Flat White Standard Advantage	A-C	7/8" Molding ACM7 Clip	12 lb./LF	6.3 lb./LF	3.7 lb./LF
			DXL24							
			DXL24HRC							
Heavy Duty	12' 3600 mm	USG 1.64" (42 mm)	DXL26	Class A	Flat White Standard Advantage	A-F	7/8" Molding ACM7 Clip	16 lb./LF	8.4 lb./LF	5 lb./LF
			DXL26HRC							
			CGC 1.5" (38 mm) DX/DXL24							
	2' 600 mm	USG 1" (25 mm)	DX216	Class A	Flat White, Standard, Advantage, and Premium					
			DXL216							
			DXL216HRC							
	20"	1" (25 mm)	DX2016	Class A	Flat White, Standard, Advantage, and Premium					
			DX3016							
			DX324							
	30"	1" (25 mm)	DX3016	Class A	Flat White, Standard, Advantage, and Premium					
			DX324							
			DX324							
	3'	1-1/2" (38 mm)	DX324	Class A	Flat White, Standard, Advantage, and Premium					
			DXL424							
			DXL424HRC							
	4' 1200 mm	USG 1-1/2" (38 mm)	DXL424	Class A	Flat White, Standard, Advantage, and Premium					
			DXL424HRC							
			CGC 1-1/2" (38 mm) DX/DXL424							
	4' (1200 mm)	1-1/2" (38 mm)	DX422	Class A	Flat White, Standard, Advantage, and Premium					
			DX422HRC							
			DX422HRC							
	4' (1200 mm)	1" (25 mm)	DX416	Class A	Flat White, Standard, Advantage, and Premium					
			DX426 HD							
			DXL524							
	5' (1500 mm)	1-1/2" (38 mm)	DXL524	Class A	Flat White, Standard, Advantage, and Premium					
			DX624							
			DX824							
	6'	1-1/2" (38 mm)	DX624	Class A	Flat White, Standard, Advantage, and Premium					
			DX824							
			DX824							
	8'	1-1/2" (38 mm)	DX824	Class A	Flat White, Standard, Advantage, and Premium					
			DX824							
			DX824							

Wall Angle	Length	Item No.	Color	Wall Angle	Length	Item No.	Color
	12' 3600 mm	M7	Standard Advantage Premium		12' 3600 mm	MS125	Flat White Standard Advantage Premium
		M7HRC					
	10' 3000 mm	M18	Standard Advantage Premium		12' 3600 mm	MS174	Standard Advantage Premium
						MS174HRC	
	10' 3000 mm	M20SM-2	Standard Advantage Premium		10' 3000 mm	MS274	
	10' 3000 mm	M20S	Standard Advantage Premium				
		M20SM/Seismic					

**Low Emissions (VOC)**  
CDPH 01350 v1.2-2017 compliance on select finishes, see usg.ecomedes.com for more details and documentation.

**High Recycled Content**  
USG classifies High Recycled Content as greater than 50%. Total recycled content is based on product composition of pre-consumer (post-industrial) and post-consumer recycled content per FTC guidelines.



## PHYSICAL DATA/ FOOTNOTES

**Product literature and samples**  
Data sheet: AC3167  
USG Logix™ system guide: IS268  
USG Logix™ architectural design guide: IS287  
USG Logix™ critical system dimensions: IS609  
Sample flat white—seismic: 271370,  
Sample flat white: 215673,  
Sample main tee: 206563,  
Sample flat black: 205100

**Material**  
Min. G30 hot-dipped galvanized steel body and cap. Baked-on polyester paint.

**Installation**  
Install according to ASTM C636, ASTM E580, CISC A and USG requirements. Alternate installation methods may be used when approved by the authority having jurisdiction.

**Online tools**  
usgdesignstudio.com, cgcdesignstudio.com  
usg.ecomedes.com

**ICC Evaluation Report for Code Compliance**  
See ICC-ES Evaluation Report ESR-1222 for allowable values and conditions of use in seismic design categories A through F. Reports are subject to reexamination, revision and possible cancellation. Refer to usg.com for most current version.

**ASTM Load Compliance**  
Classified as Light, Intermediate or Heavy Duty per ASTM C635 when tested and evaluated in accordance with ASTM E3090 and AC308.

### Notes

- All USG main tees, cross tees and main tee-hanger wire connections meet AC 308 and ASTM E580 requirements for tension and compression strength, as tested per ASTM E3090.
- Rated Load expressed in lb./LF based on simple span tests in accordance with ASTM E3090 with deflection limit of L/360. Duty rating is assigned based on rated load per ASTM C635.
- UL fire-rated listing, labeling and follow-up applies only to fire-rated components.
- UL fire-rated listing, labeling and follow-up applies only to fire-rated components.
- Color program for imperial only. Consult Customer Service for custom color and metric-tee colors. Upcharges apply to Standard and Advantage colors.
- Non-fire-rated only.
- Non-fire-rated applications may mix USG DX® and DXL™ parts.
- Panels must be specified to be field-cut and field-revealed and to provide widest possible lay-on edge.
- For USG DXL™, channel moldings are also acceptable in some designs. Check UL Fire Resistance Directory for molding options.
- Brass and chrome available on limited items.
- Metric sizes listed are available with standard lead times. Other metric sizes available by RTQ.
- Non-Fire Rated DX424 offered for West Coast customers only.
- Galvanized Low Gloss Clear is available in USG Donn® Brand DX® / USG Donn® Brand DXL™ Acoustical Suspension System only.
- Seismically tested and evaluated in accordance with ASTM E3118 and AC156.

**Notice**  
The information in this document is subject to change without notice. CGC Inc. or USG Corp. assumes no responsibility for any errors that may inadvertently appear in this document.

AC3167/rev. 8-24  
© 2024 USG Corporation and/or its affiliates. All rights reserved. Printed in U.S.A.

Manufactured by USG Interiors, LLC  
550 West Adams Street  
Chicago, IL 60661

The trademarks USG, CGC, DONN, DX, DXL, ECLIPSE, ECOBLUEPRINT, FIRECODE, LOGIX, QUICK-RELEASE, IT'S YOUR WORLD. BUILD IT., the USG/CGC logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

**Safety First!** Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.



# Gold Bond® Fire-Shield® Gypsum Board

09 29 00 / NGC

Technical Information  
800.NATIONAL • 800.628.4662

## DESCRIPTION

Gold Bond® Fire-Shield® Gypsum Board consists of a fire-resistant gypsum core encased in heavy, natural-finish, 100% recycled paper on the face and back sides. The face paper folds around the long edges to reinforce and protect the core, and the ends are cut square and finished smooth.

Use it for interior, fire-rated wall and ceiling applications. A specially formulated Type C core is also available where required.

GridMarX® are printed on the face paper surface to help installers instantly identify stud locations and make accurate cuts without having to pencil in or snap chalk lines.

**Finishing:** Long edges of the boards are tapered or square. Tapered edges allow joints to be reinforced with joint tape and concealed with joint compounds or setting compounds.

## BASIC USES

### Applications

Use 1/2" (12.7 mm) Fire-Shield Type C and 5/8" (15.9 mm) Fire-Shield Type C and Type X Gypsum Boards on walls and ceilings in fire-rated construction where the framing members are spaced up to 24" (610 mm) o.c.

### Advantages

- Approved component in specific UL-rated designs.
- Lightweight and cost-efficient material that is compatible with a wide range of decorative finishes.
- Cuts easily for quick installation, permitting painting or other decoration and the installation of metal or wood trim almost immediately.
- Fire-resistant material with a gypsum core that 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.
- Save time and money with MaX 12® and MaX 16® optimized fastener patterns for 5/8" Fire-Shield products to achieve 1-hour fire ratings using fewer fasteners. Visit [GridMarX.com](http://GridMarX.com) for more information.
- Features the GridMarX preprinted fastening guide on the board to allow for faster and more accurate installation.
- Achieves UL GREENGUARD Gold Certification for low chemical emissions into indoor air during product usage. For more information, visit: [ul.com/gg](http://ul.com/gg).
- Qualifies as a low-VOC emitting material by meeting California Specification 01350.

## INSTALLATION RECOMMENDATIONS

### General

- Install gypsum board in accordance with methods described in ASTM C840 and GA-216.
- Examine and inspect framing materials to which gypsum board is to be applied. Remedy all defects prior to installation of the gypsum board.
- GridMarX provides quick identification and uniform nail/screw patterns. Use GridMarX to make accurate cuts without drawing lines. GridMarX guide marks run the length of the board at five points in 4" (102 mm) increments. Marks run along the edge in both tapers and at 16" (406 mm), 24" (610 mm) and 32" (813 mm) in the field of the board. The marks cover easily with no bleed-through using standard paint products.
- Apply gypsum board first to ceilings at right angles to framing members, then to walls. Use boards of maximum practical length so that the minimum number of end joints occur. Bring board edges into contact with each other but do not force into place.
- Install batt or blanket ceiling insulation **before** the gypsum board on ceilings when installing a vapor retarder behind the gypsum board. Install the insulation **immediately** after the gypsum board when using loose fill insulation. Avoid installation practices that might allow condensation to form behind boards.
- Cut gypsum board to allow for a minimum 1/4" (6.4 mm) gap between gypsum board and floor to prevent potential wicking.
- Locate gypsum board joints at openings so that no joint will occur within 12" (305 mm) of the edges of the opening unless installing control joints at these locations. Stagger vertical end joints. Joints on opposite sides of a partition should not occur on the same stud.
- Hold gypsum board in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the board toward the edges and ends. Set fasteners with heads slightly below the surface of the board. Take care to avoid breaking the face paper of the gypsum board. Remove improperly driven nails or screws.
- Provide minimum 1/4" (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- Maintain a room temperature of not less than 40°F (4°C) during application of gypsum board.
- Maintain a room temperature of not less than 50°F (10°C) when using adhesive to attach the gypsum board and during joint treatment, texturing and decoration, beginning 48 hours prior to application and continuously thereafter until completely dry. Maintain adequate ventilation in the working area during installation and curing period.

(Continued on page 3)

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

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

Submittal Approvals: (Stamps or Signatures)

**Gold  
Bond®**  
Gypsum Board

# Gold Bond® Fire-Shield® Gypsum Board

## TECHNICAL DATA

Physical Properties	1/2" Fire-Shield C	5/8" Fire-Shield	5/8" Fire-Shield C
<b>Thickness<sup>1</sup>, Nominal</b>	1/2" (12.7 mm)	5/8" (15.9 mm)	5/8" (15.9 mm)
<b>Width<sup>1</sup>, Nominal</b>	4 (1,219 mm)	4 (1,219 mm), 54" (1,372 mm)	4 (1,219 mm)
<b>Length<sup>1,4</sup>, Standard</b>	8 – 12 (2,438 mm – 3,658 mm)	8 – 12 (2,438 mm – 3,658 mm)	8 – 12 (2,438 mm – 3,658 mm)
<b>Weight, Nominal</b>	1.9 lbs./sq. ft. (9.28 k/m <sup>2</sup> )	2.2 lbs./sq. ft. (10.74 k/m <sup>2</sup> )	2.3 lbs./sq. ft. (11.23 k/m <sup>2</sup> )
<b>Edges<sup>1</sup></b>	Square or Tapered	Square or Tapered	Square or Tapered
<b>Flexural Strength<sup>1</sup>, Perpendicular</b>	≥ 107 lbf. (476 N)	≥ 147 lbf. (654 N)	≥ 147 lbf. (654 N)
<b>Flexural Strength<sup>1</sup>, Parallel</b>	≥ 36 lbf. (160 N)	≥ 46 lbf. (205 N)	≥ 46 lbf. (205 N)
<b>Humidified Deflection<sup>1</sup></b>	≤ 10/8" (31.8 mm)	≤ 5/8" (15.9 mm)	≤ 5/8" (15.9 mm)
<b>Nail Pull Resistance<sup>1</sup></b>	≥ 77 lbf. (343 N)	≥ 87 lbf. (387 N)	≥ 87 lbf. (387 N)
<b>Hardness<sup>1</sup> – Core, Edges and Ends</b>	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)
<b>Bending Radius</b>	10 (3,048 mm)	15 (4,572 mm)	15 (4,572 mm)
<b>Thermal Resistance<sup>5</sup></b>	R = .45	R = .56	R = .56
<b>Product Standard Compliance</b>	ASTM C1396	ASTM C1396	ASTM C1396
Fire-Resistance Characteristics			
<b>Core Type</b>	Type C	Type X	Type C
<b>UL Type Designation</b>	FSW-C	FSW	FSW-C
<b>Combustibility<sup>2</sup></b>	Non-combustible Core	Non-combustible Core	Non-combustible Core
<b>Surface Burning Characteristics<sup>3</sup></b>	Class A	Class A	Class A
<b>Flame Spread<sup>3</sup></b>	15	15	15
<b>Smoke Development<sup>3</sup></b>	0	0	0

### Applicable Standards and References

ASTM C473 *Standard Test Methods for Physical Testing of Gypsum Panel Products*  
 ASTM C518 *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*  
 ASTM C840 *Standard Specification for Application and Finishing of Gypsum Board*  
 ASTM C1396 *Standard Specification for Gypsum Board*  
 ASTM E119 *Standard Test Methods for Fire Tests of Building Construction and Materials*  
 ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials*  
 ASTM E136 *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*  
 Gypsum Association, GA-214, *Levels of Finish for Gypsum Panel Products*  
 Gypsum Association, GA-216, *Application and Finishing of Gypsum Panel Products*  
 Gypsum Association, GA-238, *Guidelines for Prevention of Mold Growth on Gypsum Board*  
 Gold Bond Building Products, LLC Manufacturer Standards, *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.

**Gold  
Bond®**  
Gypsum Board

# Gold Bond® Fire-Shield® Gypsum Board

(Continued from page 1)

## Finishing

Refer to GA-214, *Levels of Finish for Gypsum Panel Products*, to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

## Decoration

Ensure gypsum board surfaces, including finished joints, are clean, dust-free and gloss-free to achieve best painting results. Apply a coat of quality drywall primer to equalize the porosities between surface paper and joint compound, improving fastener and joint concealment.

Selection of a paint to provide desired finish characteristics is the responsibility of the architect or contractor.

Prepare and prime gypsum boards prior to texturing.

Refer to GA-214 to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

## Critical lighting areas

Wall and ceiling areas abutting window mullions or skylights, long hallways, and atriums with large surface areas washed with artificial or natural lighting are a few examples of critical lighting areas. Strong side lighting from windows or surface-mounted light fixtures may reveal minor surface imperfections. Light striking the surface obliquely, at a slight angle, exaggerates surface irregularities. If you cannot avoid critical lighting, minimize the effects by skim coating the gypsum board surfaces, by decorating the surface with medium to heavy textures, or by the use of draperies and blinds, which soften shadows. In general, paints with sheen levels other than flat, enamel paints and dark-toned paint finishes highlight surface defects; consider the use of textures to hide these minor visual imperfections.

## LIMITATIONS

### General

- Avoid exposure to excessive or continuous moisture and extreme temperatures. Do not expose gypsum board to temperatures exceeding 125°F (52°C) for extended periods of time.
- Properly ventilate or condition attic spaces to remove moisture buildup above gypsum board ceilings. If required, install a vapor retarder behind gypsum board.
- Avoid installing gypsum board directly over insulation blankets with facer flanges placed continuously across the face of the framing members; recess insulation blankets and attach flanges to the sides of framing.
- Isolate gypsum board from contact with building structure in locations where structural movement may impose direct loads on gypsum board assemblies.
- Provide control joints spaced not more than 30' (9,144 mm) where employing long continuous runs of walls, partitions or ceilings without perimeter relief.
- Avoid gypsum board joints within 12" (305 mm) of the corners of window or door frames unless installing control joints at these locations.
- Space supporting framing for single-layer application of 1/2" (12.7 mm) and 5/8" (15.9 mm) gypsum board a maximum of 24" (610 mm) o.c.
- To prevent objectionable sag in gypsum board ceilings, the weight of overlaid, unsupported insulation should not exceed the following recommendations:

### Ceiling-Supported Insulation

	Type X	Type C	Type C
<b>Thickness, Nominal</b>	5/8" (15.9 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)
<b>Framing Spacing</b>	24" o.c. (610 mm)	24" o.c. (610 mm)	24" o.c. (610 mm)
<b>Weight of Ceiling-Supported Insulation</b>	2.2 psf (10.7 kg/m <sup>2</sup> )	1.3 psf (6.3 kg/m <sup>2</sup> )	2.2 psf (10.7 kg/m <sup>2</sup> )

**Gold  
Bond®**  
Gypsum Board

# Gold Bond® XP® Gypsum Board

09 29 00 / NGC

Technical Information  
800.NATIONAL • 800.628.4662

## DESCRIPTION

Gold Bond XP® Gypsum Board was designed to provide extra protection against mold and mildew compared to standard gypsum board products. The face paper is folded around the long edges to reinforce and protect the core, and the ends are square-cut and finished smooth. Long edges of the panels are tapered.

With PURPLE paper on the face side and heavy, mold- and moisture-resistant, 100% recycled gray paper on the back side, you can count on XP Gypsum Board to help protect your projects from mold.

It is available as Regular XP Gypsum Board, Gold Bond® XP® Fire-Shield® Gypsum Board, or Gold Bond® XP® Fire-Shield C™ Gypsum Board.

GridMarX® are printed on the face paper surface to help installers instantly identify stud locations and make accurate cuts without having to pencil in or snap chalk lines.

## BASIC USES

### Applications

- Use it on both wood- and steel-framed construction for interior wall and ceiling applications.
- Use it as a tile backerboard in dry areas or areas with limited moisture, such as toilet or sink areas, and wall and ceiling areas above tile in tubs and showers.
- Approved for use in protected exterior soffit applications. Reference GA-216, *Application and Finishing of Gypsum Panel Products* for installation recommendations.
- 1/2" (12.7 mm) XP® Fire-Shield® Type C, 5/8" (15.9 mm) XP® Fire-Shield® Type X, and 5/8" (15.9 mm) XP® Fire-Shield® Type C have specially formulated cores designed for use in specific fire-rated assemblies.

### Advantages

- Suitable for all interior applications, including walls and ceilings. Also use it as a tile backerboard in dry areas and in areas with limited moisture.
- Resists the growth of mold per ASTM D3273 with a score of 10, the best possible score.
- Resists the growth of mold per ASTM G21 with a score of 0, the best possible score.
- Features SPORGARD® technology with extra mold-inhibiting properties.
- Fire-resistant material with a gypsum core that will not support combustion or transmit temperatures greatly in excess of 212°F (100°C) until completely calcined, a slow process.
- Easily scored and snapped to exact size without sawing.

- Dimensionally stable product with negligible expansion and contraction under normal atmospheric conditions.
- Save time and money with MaX 12® and MaX 16® optimized fastener patterns for 5/8" Fire-Shield products to achieve 1-hour fire ratings using fewer fasteners. Visit [GridMarX.com](http://GridMarX.com) for more information.
- Features GridMarX guide marks on the board to allow for faster and more accurate installation.
- Achieves UL GREENGUARD Gold Certification for low chemical emissions into indoor air during product usage. For more information, visit: [ul.com/gg](http://ul.com/gg).
- Qualifies as a low-VOC emitting material by meeting California Specification 01350. For more information, visit: [calrecycle.ca.gov/greenbuilding/specs/section01350](http://calrecycle.ca.gov/greenbuilding/specs/section01350).

## INSTALLATION RECOMMENDATIONS

### General

- Install gypsum board in accordance with methods described in ASTM C840 and GA-216.
- Examine and inspect framing materials to which gypsum board is to be applied. Remedy all defects prior to installation of the gypsum board.
- GridMarX provides quick identification and uniform nail/screw patterns. Use GridMarX to make accurate cuts without drawing lines. GridMarX guide marks run the length of the board at five points in 4" (102 mm) increments. Marks run along the edge in both tapers and at 16" (406 mm), 24" (610 mm) and 32" (813 mm) in the field of the board. The marks cover easily with no bleed-through using standard paint products.
- Apply gypsum board first to ceilings at right angles to framing members, then to walls. Use boards of maximum practical length so that the minimum number of end joints occur. Bring board edges into contact with each other but do not force into place.
- Install batt or blanket ceiling insulation **before** the gypsum board on ceilings when installing a vapor retarder behind the gypsum board. Install the insulation **immediately** after the gypsum board when using loose fill insulation. Avoid installation practices that might allow condensation to form behind boards.
- Cut gypsum board to allow for a minimum 1/4" (6.4 mm) gap between gypsum board and floor to prevent potential wicking of moisture.
- Provide minimum 1/4" (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.

(Continued on page 3)

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

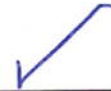
Contractor \_\_\_\_\_ Date \_\_\_\_\_

Submittal Approvals: (Stamps or Signatures)



# Gold Bond® XP® Gypsum Board

## TECHNICAL DATA



Physical Properties	1/2" XP	1/2" XP Fire-Shield C	5/8" XP Fire-Shield	5/8" XP Fire-Shield C
<b>Thickness<sup>1</sup>, Nominal</b>	1/2" (12.7 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)	5/8" (15.9 mm)
<b>Width<sup>1</sup>, Nominal</b>	4' (1,219 mm)	4' (1,219 mm)	4' (1,219 mm) 54" (1,375 mm)	4' (1,219 mm)
<b>Length<sup>1,4</sup>, Standard</b>	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)	8' – 12' (2,438 mm – 3,658 mm)
<b>Weight, Nominal</b>	1.5-1.6 lbs./sq. ft. (7.32-7.81 k/m <sup>2</sup> )	1.9 lbs./sq. ft. (9.28 k/m <sup>2</sup> )	2.2 lbs./sq. ft. (10.74 k/m <sup>2</sup> )	2.3 lbs./sq. ft. (11.23 k/m <sup>2</sup> )
<b>Edges<sup>1</sup></b>	Tapered or Square	Tapered or Square	Tapered or Square	Tapered or Square
<b>Flexural Strength<sup>1</sup>, Perpendicular</b>	≥ 107 lbf. (476 N)	≥ 107 lbf. (476 N)	≥ 147 lbf. (654 N)	≥ 147 lbf. (654 N)
<b>Flexural Strength<sup>1</sup>, Parallel</b>	≥ 36 lbf. (160 N)	≥ 36 lbf. (160 N)	≥ 46 lbf. (205 N)	≥ 46 lbf. (205 N)
<b>Humidified Deflection<sup>1</sup></b>	≤ 10/8" (31.8 mm)	≤ 10/8" (31.8 mm)	≤ 5/8" (15.9 mm)	≤ 5/8" (15.9 mm)
<b>Nail Pull Resistance<sup>1</sup></b>	≥ 77 lbf. (343 N)	≥ 77 lbf. (343 N)	≥ 87 lbf. (387 N)	≥ 87 lbf. (387 N)
<b>Hardness<sup>1</sup> – Core, Edges and Ends</b>	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)	≥ 11 lbf. (49 N)
<b>Bending Radius</b>	10' (3,048 mm)	10' (3,048 mm)	15' (4,572 mm)	15' (4,572 mm)
<b>Thermal Resistance<sup>5</sup></b>	R = .45	R = .45	R = .56	R = .56
<b>Permeance<sup>6</sup></b>	37 perms	37 perms	37 perms	37 perms
<b>Water Absorption<sup>1</sup> (% of Weight)</b>	≤ 5%	≤ 5%	≤ 5%	≤ 5%
<b>Mold Resistance<sup>8</sup>, ASTM D3273</b>	Score of 10	Score of 10	Score of 10	Score of 10
<b>Mold Resistance<sup>8</sup>, ASTM G21</b>	Score of 0	Score of 0	Score of 0	Score of 0
<b>Product Standard Compliance</b>	ASTM C1396	ASTM C1396	ASTM C1396	ASTM C1396
<b>Fire-Resistance Characteristics</b>				
<b>Core Type</b>	Regular	Type C	Type X	Type C
<b>UL Type Designation</b>	N/A	FSW-C	FSW	FSW-C
<b>Combustibility<sup>2</sup></b>	Non-combustible Core	Non-combustible Core	Non-combustible Core	Non-combustible Core
<b>Surface Burning Characteristics<sup>3</sup></b>	Class A	Class A	Class A	Class A
<b>Flame Spread<sup>3</sup></b>	15	15	15	15
<b>Smoke Development<sup>3</sup></b>	0	0	0	0

### Applicable Standards and References

- ASTM C473 *Standard Test Methods for Physical Testing of Gypsum Panel Products*
- ASTM C518 *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*
- ASTM C840 *Standard Specification for Application and Finishing of Gypsum Board*
- ASTM C1396 *Standard Specification for Gypsum Board*
- ASTM D3273 *Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber*
- ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials*
- ASTM E96 *Standard Test Methods for Water Vapor Transmission of Materials*
- ASTM E119 *Standard Test Methods for Fire Tests of Building Construction and Materials*
- ASTM E136 *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*
- ASTM G21 *Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi*
- Gypsum Association, GA-214, *Levels of Finish for Gypsum Panel Products*
- Gypsum Association, GA-216, *Application and Finishing of Gypsum Panel Products*
- Gypsum Association, GA-238, *Guidelines for Prevention of Mold Growth on Gypsum Board*
- Gold Bond Building Products, LLC Manufacturer Standards, *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.
6. Tested in accordance with ASTM E96.
7. Tested in accordance with ASTM D3273 and rated in accordance with ASTM D3274.
8. Tested in accordance with ASTM G21.



# Gold Bond® XP® Gypsum Board

(Continued from page 1)

- Locate gypsum board joints at openings so that no joint will align within 12" (305 mm) of the edges of the opening unless installing control joints at these locations. Stagger vertical end joints. Joints on opposite sides of a partition should not occur on the same stud.
- Hold gypsum board in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the board toward the edges and ends. Set fasteners with heads slightly below the surface of the board. Take care to avoid breaking the face paper of the gypsum board. Remove improperly driven nails or screws.
- Maintain a room temperature of not less than 40°F (4°C) during application of gypsum board.
- Maintain a room temperature of not less than 50°F (10°C) when using adhesive to attach gypsum board and during joint treatment, texturing and decoration, beginning 48 hours prior to application and continuously thereafter until completely dry. Maintain adequate ventilation in the working area during installation and curing period.
- Double nailing is an alternate method of attachment devised to minimize nail pops. This system requires doubling up on the field nails. The total quantity of nails used does not double, however, since maximum nail spacing is increased to 12" (305 mm) o.c. and conventional nailing is used on the perimeter. Application is accomplished by first single nailing the field of the board, starting at the center and working toward ends and edges. Another nail is then driven in close proximity (2" [50.8 mm] to 2-1/2" [63.6 mm]) to each of the first nails. The first series of nails are then struck again to ensure the board is drawn tightly to the framing member.
- When using adhesive to attach gypsum board, apply drywall adhesive to the face of studs or joists in continuous beads. Reference ASTM C840 Section 10.

## Finishing

Refer to GA-214, *Levels of Finish for Gypsum Panel Products*, to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

## Decoration

Ensure gypsum board surfaces, including finished joints, are clean, dust-free and gloss-free to achieve best painting results. Apply a coat of a quality drywall primer to equalize the porosities between surface paper and joint compound, improving fastener and joint concealment.

Selection of a paint to provide desired finish characteristics is the responsibility of the architect or contractor.

Prepare and prime gypsum boards prior to texturing.

Refer to GA-214 to determine the level of finishing needed to assure a surface properly prepared to accept the desired decoration.

## Critical Lighting Areas

Wall and ceiling areas abutting window mullions or skylights, long hallways, and atriums with large surface areas washed with artificial or natural lighting are a few examples of critical lighting areas. Strong side lighting from windows or surface-mounted light fixtures may reveal minor surface imperfections. Light striking the surface obliquely, at a slight angle, exaggerates surface irregularities. If you cannot avoid critical lighting, minimize the effects by skim coating the gypsum board surfaces, by decorating the surface with medium to heavy textures, or by the use of draperies and blinds, which soften shadows. In general, paints with sheen levels other than flat, enamel paints and dark-toned paint finishes highlight surface defects; consider using textures to hide these minor visual imperfections. Finish boards to a Level 5 finish, as outlined in GA-214.

## LIMITATIONS

- Avoid exposure to excessive or continuous moisture and extreme temperatures. Do not expose gypsum board to temperatures exceeding 125°F (52°C) for extended periods of time.
- Properly ventilate or condition attic spaces to remove moisture buildup above gypsum board ceilings. If required, install a vapor retarder in exterior ceilings behind gypsum board.
- Avoid installing gypsum board directly over insulation blankets with facer flanges placed continuously across the face of the framing members; recess insulation blankets and attach flanges to the sides of framing.
- Isolate gypsum board from contact with building structure in locations where structural movement may impose direct loads on gypsum board assemblies.
- Provide control joints spaced not more than 30' (9,144 mm) where employing long continuous runs of walls, partitions or ceilings without perimeter relief.
- Avoid gypsum board joints within 12" (305 mm) of the corners of window or door frames unless installing control joints at these locations.
- In single-ply installation, all ends and edges of gypsum board should occur over framing members or other solid backing except where treated joints occur at right angles to framing or furring members.
- Apply 1/2" (12.7 mm) gypsum board ceilings to be decorated with water-based spray texture perpendicular to the framing spaced a maximum of 16" (406 mm) o.c.
- Space supporting framing for single-layer application of 1/2" (12.7 mm) gypsum board a maximum of 24" (610 mm) o.c.
- Do not use boards as a nailing base as they are nonstructural.
- Avoid using in areas subject to constant and/or excessive moisture and high humidity, such as gang showers, saunas, steam rooms or swimming pool enclosures.
- Avoid using as a backer board directly behind tile in tub and shower areas.
- Do not install or treat joints until the building is properly enclosed. Do not install in pre-rock conditions.



# BRIDGECLIP®

BridgeClip® secures BB150 or 1½" cold-rolled channel (CRC) to stud, resisting both lateral and twisting loads. Tabs on the bottom of a BridgeClip clamp on the BridgeBar® or CRC, while #10 screws attach the clips to a channel and/or stud through pre-drilled guide holes. Efficient installation is not the only benefit, as BridgeClip is engineered to accommodate loads that have traditionally been addressed with generic L2x2x16ga.

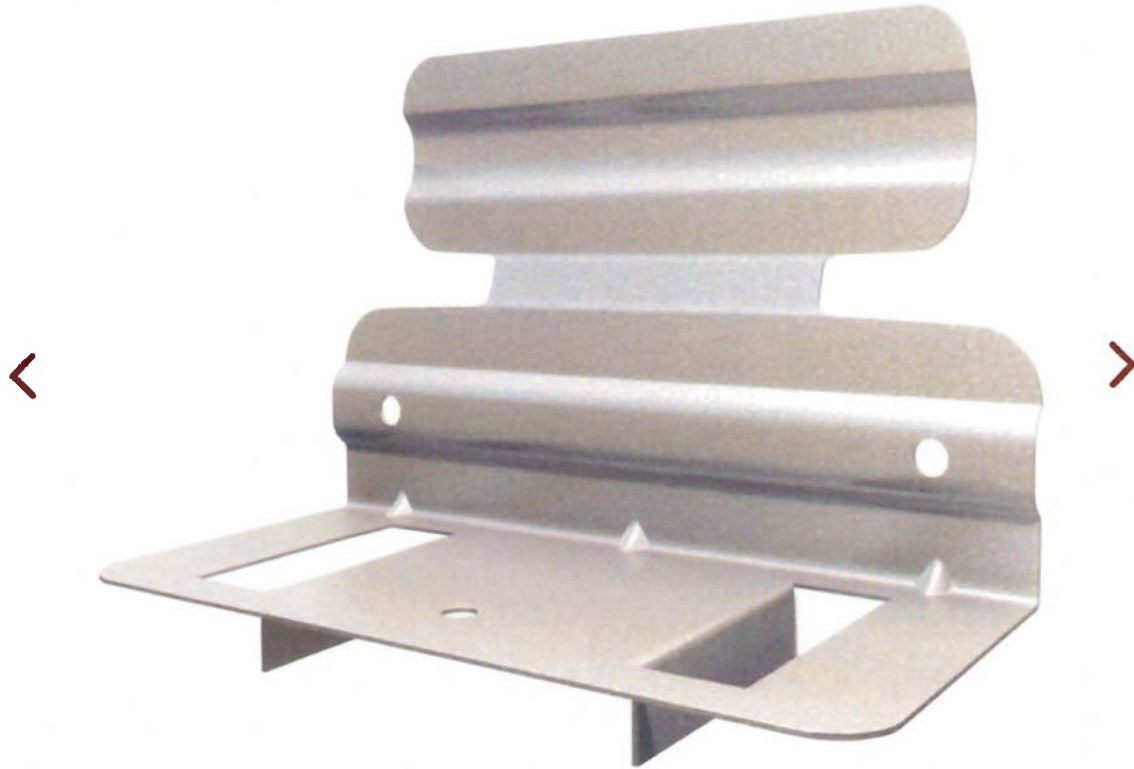
## FEATURES

- Fast installation
- No clamping
- No welding
- Guide holes provided for quick and accurate fastener placement
- Rounded edges for safety
- Laborers are working on installation, not cutting angle
- Certified, 50ksi steel, G90 galvanized coating
- 33 Mil thickness (BC-33)
- 43 Mil thickness (BC-43, BC600 & BC800)

## ORDER INFORMATION

## MATERIAL COMPOSITION

## CATALOGS



US Patents #5,904,023

# Hanger Wire

 Galvanized Hanger Wire Bundle

## Galvanized Hanger Wire

*Straight Cut – 50# Bundles*

Size	Count/50# Bundle	SKU
12 ga x 6'	266	483-060
12 ga x 8'	200	483-080
12 ga x 12'	133	483-120
12 ga x 14'	114	483-140
12 ga x 16'	100	483-160
12 ga x 20'	80	483-200
9 ga x 12'	67	481-120
9 ga x 20'	40	481-200
8 ga x 12'	59	481-121
8 ga x 20'	35	481-201

*Straight Cut – 100 pieces per bundle*

Size	Bundle Qty.	Log Qty. (bundle)	SKU
12 ga x 4'	100	20	485-040
12 ga x 6'	100	20	485-060
12 ga x 8'	100	20	485-080