



This section includes a non-combustible magnesium oxide panels for use in fire rated partitions. Verify components and assembly requirements of fire rated assemblies with UL Fire Resistance Design.

This section includes performance, proprietary and descriptive type specifications; edit text to avoid conflicting requirements.

Part 1 General

1.1 SECTION INCLUDES

In this article, select the components or assemblies that are intended to be part of the content of this section and will not be included in other sections.

- .1 Magnesium oxide fireproofing panels for fire rated assemblies.
- .2 Joint treatment.
- .3 [Non-combustible acoustic insulation.]

1.2 RELATED SECTIONS

In this article, indicate those sections that inter-rely on this section. The listing below is only partial and should be edited to include those sections specific to the project that describe subjects or products that affect this section directly.

- .1 Section 05 41 00 - Structural Metal Lightweight Framing: Load bearing studs for exterior applications.
- .2 Section 07 21 16 - Blanket Insulation.
- .3 Section 09 22 13 - Metal Furring And Lathing.

1.3 REFERENCES

Edit this article after editing the rest of this section. Only list reference standards below, that are included within the text of this section, when edited for a project specification delete other references that do not apply.

- .1 International Code Council Evaluation Service Inc. (ICC-ES)
 - .1 Acceptance Criteria AC386 for Fiber-Reinforced Magnesium-Oxide-Based Sheets.
- .2 ASTM C475/C475M-02 (R2007) - Joint Compound and Joint Tape for Finishing Gypsum Board.
- .3 ASTM C1047-09 - Accessories for Gypsum Wallboard and Gypsum Veneer Base.
- .4 ASTM C1185-08(2012) - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.
- .5 ASTM C1186-08(2012) - Standard Specification for Flat Fiber-Cement Sheets.
- .6 ASTM C1325-08b - Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.

- .7 ASTM E72-13a - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
- .8 ASTM E84-13a - Standard Test Method for Surface Burning Characteristics of Building Materials.
- .9 ASTM E119-12a - Standard Test Methods for Fire Tests of Building Construction and Materials.
- .10 ASTM G21-13 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- .11 GA-214-07 (Gypsum Association) - Recommended Levels of Gypsum Board Finish.
- .12 GA-216-07 (Gypsum Association) - Application and Finishing of Gypsum Panel Products.
- .13 UL 263 - Fire Tests of Building Construction and Materials 2011.

1.4 PERFORMANCE REQUIREMENTS

Edit this article carefully; restrict statements to identify assembly or system performance requirements or function criteria only. Delete paragraphs not appropriate to the project. Performance specifying permits system manufacturers the latitude to adjust or redesign proprietary systems to achieve requirements specified in this section.

- .1 Surface Burning Characteristics: Classified as non-combustible when tested in accordance with ASTM E84 and E136.
- .2 Fireproofing System: Provide fire rated [assembly] [assemblies] to [ULC] [UL] Assembly No. as [U061].

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Section 01 31 00: Project management and coordination procedures.
- .2 Pre-installation Meetings: Convene [one (1) week] [[_____] weeks] before starting work of this section.
- .3 Sequencing: Sequence work in conjunction with placement of [wall framing] [insulation] [electrical components] [_____].

1.6 SUBMITTALS FOR REVIEW

Do not request submittals if this specification section or drawings sufficiently describe the products of this section or if proprietary specifying is used. The following submittals are intended for review to determine eligibility for the project.

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Provide product data on [magnesium oxide fireproofing] [insulation][metal framing].
- .3 Shop Drawings: Indicate fastener type and spacing to suit framing details.

Use the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.

- .4 Samples: Submit [two (2)] samples, [<[_____] mm><<[_____] inches>>] in size.



1.7 SUBMITTALS FOR INFORMATION

The following submittals are for information only; do not request these submittals if the information submitted will be assessed for acceptability.

- .1 Section 01 33 00: Submission procedures.
- .2 Test Reports: Indicating the following:
 - .1 Fire test reports of fireproofing application to substrate materials similar to project conditions.
 - .2 Reports from reputable independent testing agencies, of product proposed for use, which indicate conformance to the following:
 - .1 Fire Endurance: [CAN/ULC-S101] [ASTM E119].
 - .2 Surface Burning Characteristics: [CAN/ULC-S102] [ASTM E84].
- .3 Installation Data: Manufacturer's special installation requirements.

Include the following ONLY if specifying for a LEED project. Specify only the technical requirements necessary to achieve the credits desired for this project.

- .4 Sustainable Design:
 - .1 Section 01 35 18: LEED documentation procedures.
 - .2 Provide required LEED documentation for Product [recycled content] [regional materials].
 - .3 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

1.8 CLOSEOUT SUBMITTALS

The following submittals are for project closeout purposes; do not request these submittals if the information submitted will be assessed for acceptability.

- .1 Section 01 78 10: Submission procedures.

Include the following ONLY if specifying for a LEED project.

- .2 Sustainable Design Closeout Documentation: [_____].

1.9 QUALITY ASSURANCE

This article includes statements that require quality applicable to the whole section. Include the last sentence of the following paragraph only when the costs of acquiring the specified standards are justified.

- .1 Perform Work in accordance with UL Design No. U061.
- .2 Applicator Qualifications: Company specializing in performing the work of this section with minimum [three (3)] years documented experience [and approved by the manufacturer].

1.10 REGULATORY REQUIREMENTS

Only include this article when required by applicable code criteria.

- .1 Conform to applicable code for [fire resistance ratings] [_____].

- .2 Provide certificate of compliance for fireproofing materials to [authority having jurisdiction] [_____] indicating approval for use on this project.

1.11 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Protect materials from warping or other distortion by stacking in flat sheets, off the ground.
- .3 Protect stockpiled materials from weather using waterproof tarps.

Part 2 Products

2.1 MANUFACTURERS

This article is for proprietary specifying with one or more manufacturers. Use the first and third paragraphs for specifying a single manufacturer. If specifying a product by reference to a standard only, delete this article. Additional manufacturer's data can be found at [http:// www.magnumbp.com](http://www.magnumbp.com).

- .1 Magnum Building Products, LLC
 - .1 10150 Highland Manor Drive, Suite 200
 - .2 Tampa, Florida
 - .3 33610
 - .4 Tel: (813) 314-2202
 - .5 Fax: (813) 314-2203
 - .6 Web: www.magnumbp.com
- .2 Other acceptable manufacturers offering functionally [and aesthetically] equivalent products.
 - .1 [____]; Product: [_____].
 - .2 [____]; Product: [_____].
 - .3 [____]; Product: [_____].
- .3 Substitutions: [Not permitted] [Refer to Section 01 62 00].

2.2 MATERIALS

Fire rated Magnum Board is only available in 12 mm (15/32 inch) panel thickness and 1220 mm (4 feet) width x 2440 mm, 2745 mm, and 3050 mm (8, 9, and 10 feet) lengths.

- .1 Magnesium Oxide Fireproofing Panels: Fibre-reinforced homogeneous panel, paperless, moisture resistant; maximum available length in place ends square cut, [square][tapered] edges.
 - .1 Fire rated, <12 mm><<15/32 inch>> thick.

2.3 FRAMING MATERIALS

This article is to identify metal framing substrates to which the fireproofing panel is to be applied.

- .1 Metal Studs and Tracks: Specified in Section 09 22 16.

2.4 COMPONENTS

- .1 Mineral Wool Batt Insulation: Section [07 21 16].

2.5 ACCESSORIES

- .1 Fastening: Corrosion resistant [self-tapping screws] [pneumatic nails] [adhesive] as recommended by manufacturer.

Corner beads and other board edge bead profiles can be selected by reference to GA-216

- .1 Corner Beads: [ASTM C1047] [GA-216], [metal corner bead] [paper flange corner bead].
- .2 Edge Trim: [ASTM C1047] [GA-216]; Type [U casing bead] [L bead] [LK bead] [LC bead] [Control joint].
- .3 Joint Materials: [ASTM C475] [GA-216].
 - .1 Fibreglass reinforcing tape, adhesive, and water.
 - .2 Joint compound: Asbestos-free [dust-controlled].

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that site conditions are ready to receive work and opening dimensions are as [instructed by the manufacturer] [indicated on shop drawings].

3.2 PANEL INSTALLATION

- .1 Install in accordance with manufacturer's written instructions
- .2 Coordinate location of openings and through-wall components with other work [and with installation of firestopping assemblies].
- .3 Erect single layer fireproofing panel [vertically], with edges and ends occurring over firm bearing.
- .4 Use screws when fastening magnesium oxide fireproofing panel to furring or framing.
- .5 Place corner beads at external corners [as indicated].
 - .1 Use longest practical length.
 - .2 Place edge trim where magnesium oxide fireproofing panel abuts dissimilar materials [as indicated].

3.3 JOINT TREATMENT

For taped and filled joints, include either the following paragraph or edit the subsequent three paragraphs. Select the level of finish based on ASTM C840 or the GA-214 standard - Level 0 is no taping or finishing to Level 5 which is the highest quality level of finish. If several joint Levels are required, develop a schedule at the end of this section identifying the Level and where that Level is required. Levels of finishing are essentially the same between ASTM C840 and GA-214.



- .1 Finish in accordance with [ASTM C840] [GA-214], Level [0] [1] [2] [3] [4] [5].

[OR]

- .2 Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- .3 Feather coats on to adjoining surfaces so that camber is maximum [$<0.8\text{ mm}><<1/32\text{ inch}>>$] [$<[\text{_____}] \text{ mm}><<[\text{_____}] \text{ inch}>>$].

3.4 TOLERANCES

Do not assume that there are industry standards for tolerances. Specify tolerances below as appropriate to the nature or character of the project. Verify that such tolerances are realistic and realizable.

- .1 Section 01 73 00: Tolerances.
- .2 Maximum Variation of Finished Fireproofing Panel Surface from True Flatness: [$<3\text{ mm in }3\text{ m}><<1/8\text{ inch in }10\text{ ft}>>$] [$<[\text{_____}] \text{ mm in }3\text{ m}><<[\text{_____}] \text{ inch in }10\text{ ft}>>$] in any direction.

3.5 SCHEDULES

The following article will assist in preparing a schedule when a variety of surfaces, required ratings (by UL or ULC assembly number), and thicknesses of fireproofing are required for the project. The following schedule includes are EXAMPLES only. Edit the paragraphs below to create a schedule for the components specified in this section. Do not repeat statements that may exist on drawings.

- .1 Partition Type 'A': UL U061; 1 hour.

END OF SECTION