



# APPLICATION OF GYPSUM SHEATHING

## (GA-253-07)

### 1. Scope

**1.1** This specification describes the minimum requirements for, and the methods of handling, storage, and application of, gypsum sheathing for use as a substrate for exterior claddings.

**1.1.1** Exterior claddings shall be provided to protect gypsum sheathing from long-term weather exposure. (See section 6.1 for short-term exposure.)

**1.1.2** Exterior claddings and their application methods shall be the responsibility of those making the recommendation. Consult the local building code or cladding manufacturer to determine when a water-resistive barrier is required.

**1.2** Where fire resistance is required for a system employing gypsum sheathing, details of construction shall be in compliance with listings or reports of tests of systems tested in accordance with ASTM E 119 procedures by recognized testing laboratories and shall meet the requirements of the fire rating specified (see Fire Resistance Design Manual, GA -600).

**1.3** Where a sound control requirement is specified for a system employing gypsum sheathing, details of construction shall be in compliance with listings or reports of tests of systems tested in accordance with ASTM E 90 or E 336 that meet the requirements of the sound control rating specified (see Fire Resistance Design Manual, GA -600).

**1.4** Where a racking resistance or wall shear requirement is specified for a system employing gypsum sheathing, details of construction shall be in compliance with reports of tests of systems tested in accordance with ASTM E 72 that meet the requirements of the racking or shear value specified by the designer or applicable building code.

### 2. General Provisions

**2.1** Gypsum sheathing shall not be used on ceilings, soffits or sills unless otherwise recommended by the manufacturer.

**2.2** All wood framing members to which gypsum sheathing will be fastened shall be straight and true. Stud spacing shall be not greater than 24 in. (610 mm) o.c. The fastening surface shall be not less than 1 ½ in. (38 mm) wide and shall not vary more than 1/8 in. (3 mm) from the plane of the faces of adjacent framing.

**2.3** All steel framing members to which gypsum sheathing will be screw attached shall be straight and true, and shall be spaced not greater than 24 in. (610 mm) o.c. They shall be

produced from steel of the design thickness required and shall be protected with a protective coating to prevent corrosion. The fastening surface to which gypsum sheathing will be attached shall be not less than 1 ¼ in. (32 mm) wide.

**2.4** Gypsum sheathing used in building construction shall be not less than 8 in. (200 mm) from the finish grade in fully weather and water-protected siding systems, and not less than 12 in. (300 mm) from the ground for properly drained and ventilated crawl spaces. Where ground moisture or humidity are extreme and/or continuous, the ground's surface shall be covered with a vapor retarder.

### 3. Definitions and Terms Relating to the Specification

**3.1** Gypsum Sheathing — a gypsum board, 2 ft (610 mm) or 4 ft (1220 mm) wide, with a water-resistant gypsum core and water repellent surfaces, defined in ASTM Specification C 1396/C 1396M.

**3.1.1** Type X Gypsum Sheathing — a gypsum board as described in 3.1 having special fire resistant properties as defined in ASTM Specification C 1396/C 1396M.

**3.2** Edge — paper bound edge, as manufactured.

**3.3** End — mill-cut or field-cut end perpendicular to edge. At such cuts, the gypsum core is exposed.

**3.4** Exterior Cladding — a permanent material or system that impedes the transmission of environmental elements to the sheathing.

**3.5** Framing Member — that portion of framing, furring, etc., to which gypsum sheathing is attached.

**3.6** Fastener — nails, screws or staples used for the mechanical application of gypsum sheathing.

**3.7** Perpendicular Application — an application where gypsum sheathing edges are at right angles to the framing members to which it is attached.

**3.8** Parallel Application — an application where gypsum sheathing edges are parallel to the framing members to which it is attached.

**3.9** Shear Wall — a wall designed and constructed to resist lateral wind or seismic loads.

**3.10** Water-Resistive Barrier — a temporarily exposed protective membrane, such as building felt or building paper, that is intended to impede the penetration of environmental elements until the installation of a permanent exterior cladding.