

# IMPERIAL® Brand Gypsum Ceiling Base—Sag Resistant



**Specially formulated rigid base with enhanced sag resistance for gypsum veneer plasters.**

- Special gypsum core and multi-layered laminated face paper control water absorption, provide maximum plaster bond, and resist sag.
- Panels are designed for direct or resilient attachment to wood or steel framing.
- IMPERIAL Brand Gypsum Ceiling Base complies with ASTM C588 and has gypsum cores UL-classified as non-combustible per ASTM E136.
- Foil-back IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant has a bright aluminum foil backing which meets HUD requirements for a vapor retarder.

**Description**

IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant is ideally suited for veneer plaster systems. Available in 1/2" thick, 4' wide by 8' to 14' lengths, the panels are large enough to be installed like drywall panels. The panels feature distinctive blue face paper that controls water absorption, provides a strong plaster bond, and resists plaster slide. The panels also provide a rigid base and excellent sag resistance under conditions of high heat and humidity—up to 90% relative humidity. When securely attached, this ceiling base adds lateral stability to assemblies and offers high resistance to sound transmission. Resilient attachment further improves sound ratings.

IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant is designed to be used with the following plaster products: DIAMOND® Brand Interior Finish Plaster, IMPERIAL® Brand Finish Plaster, IMPERIAL® Brand Finish Plaster—Special White, Norfolk Special Veneer Plaster, IMPERIAL® Brand Basecoat Plaster, DIAMOND® Brand Veneer Basecoat Plaster, Custom Veneer Basecoat Plaster, and USG® Special Basecoat Plaster.

**Limitations**

1. IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant should only be used with veneer plaster products.
2. Ceiling base should not be used in areas exposed to excessive moisture for extended periods or as a base for adhesive application of ceramic tile.
3. Do not apply DIAMOND Brand Interior Finish Plaster to ceiling base that has faded from exposure to sunlight.
4. Base surfaces should be isolated with control joints or other means where (a) a partition or furring abuts a structural element (except floor) or dissimilar wall or ceiling, (b) ceiling abuts a structural element, dissimilar wall or partition or other vertical penetration, (c) construction changes within the plane of the partition or ceiling (d) partitions or furring run exceeds 30' (e) ceiling dimensions exceed 30' without relief (f) expansion or control joints occur in the base exterior wall. Ceiling-height door frames may be used as control joints, as may door frames that are less than ceiling height, if control joints extend to ceiling from both corners.
5. Do not exceed the maximum spacing of framing members shown in the table below.

**Maximum spacing of framing members for new construction**

in.	mm	Base and Finish Assembly	Framing Spacing <sup>(1)</sup>	
			in.	mm
1/2"	12.7	IMPERIAL Brand Gypsum Ceiling Base, one layer, 1-coat system	16 or 24 <sup>(2)</sup>	406.4
		One layer, 2-coat system	16 or 24 <sup>(2)</sup>	406.4 or 609.6 <sup>(2)</sup>
		Two-layer, 1 & 2 coat system	24	609.6

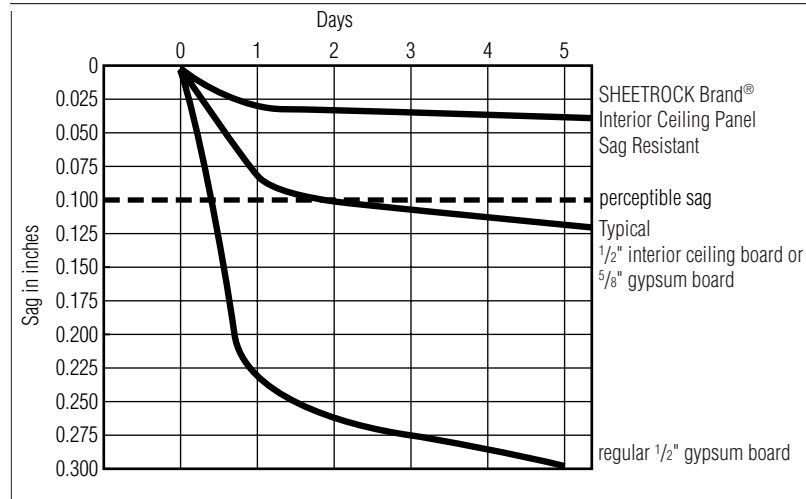
(1) For perpendicular or parallel application to framing. Perpendicular is preferred for maximum strength.

(2) Setting-type joint compound must be used with metal framing when framing is spaced 24" (609.6 mm) o.c.; this applies to both one- and two-layer systems.

**Warning:** Store all IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant flat. Panels are heavy and can fall over causing serious injury or death. Do not move unless authorized.

**Testing and comparison**

IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant features the same strength-enhancing and humidity-resistant technology introduced and tested in SHEETROCK® Brand Interior Ceiling Panels—Sag Resistant. Data shown reflect testing results for that product.



The sag characteristics of standard gypsum panels and SHEETROCK Brand Interior Ceiling Panels—Sag Resistant were evaluated by an independent laboratory. The chart above compares the sag performance of competitive products after wet texture application with insulation loading. The test results show that standard 5/8" gypsum panels and high-strength ceiling panels sag to perceptible levels in high humidity environments when textures are applied to the surface. Standard 1/2" gypsum panels sag to objectionable levels quickly. In comparison, SHEETROCK Brand panels showed minimal sag through the duration of the tests.

**Directions      Preparation**

Protect this product from moisture during storage and on the job. In cold weather, heat the interior of the building to a minimum of 55 °F (13 °C) for an adequate period before the application of plaster, while basecoat and finish is being applied and until the finish is dry. Air circulation should be kept at a minimum level during joint finishing. **Warning:** Store all IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant flat. Panels are heavy and can fall over causing serious injury or death. Do not move unless authorized. Under normal working conditions, joints of veneer plaster systems may be treated by applying IMPERIAL® Brand Type P (pressure-sensitive) or Type S (staple) to the joints and then applying the veneer plaster basecoat or finish to preset the tape.

Use SHEETROCK® Brand Joint Tape and SHEETROCK® Brand Setting-Type (DURABOND®) or Lightweight Setting-Type Joint Compound (EASY SAND™) to treat all joints and internal angles for veneer plaster systems when the following conditions exist:

- rapid drying conditions due to low humidity, high temperature or excessive evaporation
- metal framing at 24" o.c. is specified (single or double layer)

## Installation

IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant may be installed either perpendicular (preferred) or parallel to the framing. All ends and edges should be placed over framing members except where edge joints are perpendicular to framing. Use maximum practical lengths to minimize end joints. Over steel studs, arrange direction of installation so that the lead edge of the base is attached to the open side of the stud flange first. Bring ceiling base panels into contact with each other, but do not force into place. Fit abutting ends and edges neatly; stagger end joints; arrange joints on opposite sides so they occur on different studs.

Begin driving fasteners in center of panel and work toward ends and edges, holding gypsum base in firm contact with framing. Space fasteners as shown in the table and not less than 3/8" from edges and ends of panel. Drive fastener heads flush with surface without breaking face of paper. If ceiling base appears to be loose from framing, install additional fasteners. Float vertical and horizontal interior corners by placing fasteners 8" out from corner. Where framing is parallel with the corner, attach one panel to corner framing and float the abutting panel. Cut and fit the panel neatly around pipes and other openings. Remove loose face paper around cuts and use quick-setting plaster to close openings.

<b>Control Joints</b>	Apply control joints, where required, over the face of the gypsum base. Cut to required length with fine-toothed hack saw. Cut end joints square, align and butt together slightly gapped. Attach the control joint to the base temporarily with 9/16" rosin-coated staples spaced 12" o.c. along each flange. Complete the installation of the control joint with fasteners (nails or screws) driven through the control joint flange into the framing on each side of the joint. The protective plastic tape over the open groove should be left in place until finishing is completed.
<b>Metal Trim</b>	Fasten ceiling base in normal manner but omit fasteners at framing member where metal trim is to be installed. Leave a space 3/8" to 1/2" wide between edge of base and face of jamb or wall. This provides space for hardware and allows for expansion when trim is used for perimeter isolation. Slip trim over edge of base with expanded mesh flange on face side. Fasten to base by nailing or stapling 12" o.c.
<b>Vinyl Trim</b>	Slip vinyl trim over ceiling base with long flange behind base. Install the base with the trim firmly abutting the surface.
<b>Corner Bead</b>	Apply to all external edges. Hold tightly against the angle and fasten to base by nailing or stapling 12" o.c.
<b>Acoustical Sealant</b>	Seal edges of ceiling base around entire perimeter of partition. Also, seal air-tight all penetrations of the base, particularly electrical boxes. In addition to sealing the perimeter of electrical boxes, coat the back sides with a layer of acoustical sealant. Apply acoustical sealant under control joints and similar openings between the ceiling base and abutting materials.

## Product Data

**Materials:** Panels with gypsum core, paper encased, square or tapered edges.

**Compliance:** IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant complies with ASTM C588.

**Thermal coefficient of expansion (unrestrained):** 9.2 x 10<sup>-6</sup> in./in. x °F (40-100 °F); 16.2 mm/km x °C (4-38 °C).

**Thermal resistance value:** R=0.45 (1/2" base), 0.56 (5/8" base).

**Hygrometric coefficient of expansion (unrestrained):** 7.2 x 10<sup>-6</sup> in./in. x °F (7.2 mm/km x °C) at 50-90% R.H.

**Vapor permeance:** Vapor permeance is 0.06 perms for foil-back IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant. This product is available in all sizes and core types.

**Storage:** Store material in a cool, dry place. Avoid direct sunlight. Maintain temperature above 40 °F (4 °C).

**Availability and cost:** IMPERIAL Brand Gypsum Ceiling Base—Sag Resistant is only available in certain markets. Contact a USG Company sales office or sales person for additional information.

### Types, sizes, packaging and weights:

Product	Thickness		Width	Length	Pc./bd.	Approximate Weight	
	in.	mm				in.	mm
IMPERIAL Base							
Regular	1/2"	12.7	48	1219.2	8 to 2	1820	890
Foil-back	1/2"	12.7	48	1219.2	8 to 2	1820	890

**Submittal  
Approvals:**

<b>Job Name</b>	
<b>Contractor</b>	<b>Date</b>

**Trademarks**

The following trademarks used herein are owned by United States Gypsum or a related company: DIAMOND, DURABOND, EASY SAND, IMPERIAL, SHEETROCK, and USG.

**Note**

Products described here may not be available in all geographic markets. Consult your U.S. Gypsum Company sales office or representative for information.

**Notice**

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**Safety First!**

Follow good safety and industrial hygiene practices during handling and installing products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.