

# ProForm® BRAND Joint Treatment



## DESCRIPTION

National Gypsum Company produces Joint Treatment Compounds and a complete line of reinforcing tapes for the proper finishing of gypsum board joints. To ensure best results, only National Gypsum products should be used together in construction systems. Mixing with other brands is not recommended.

All National Gypsum Joint Compounds are formulated without asbestos and therefore comply with Consumer Product Safety Standards.

### JOINT COMPOUNDS

Joint treatment compounds have three basic uses:

1. To embed the joint tape and to finish over the tape, the cornerbead and nail or screw heads.
2. To texture gypsum board surfaces.
3. To laminate gypsum board to an existing surface such as old plaster, masonry, or a gypsum board or backer board base.

**ProForm BRAND All Purpose Joint Compound** – A pre-mixed compound that may be used directly from the container. It is designed for tape application, fastener spotting, and the complete joint finishing of gypsum board. It contains sufficient binder to secure the reinforcing tape and develops its strength and hardness by drying. There are two types: regular is for use with hand tools, and machine grade, a thinner version, used in mechanical tool application. It can also be used to repair cracks in plaster walls and for skimming and texturing. Available in 61.7 lb. pails or 50 lb. and 61.7 lb. cartons. West Coast only: 47 lb. cartons. Southwest only: 48 lb. cartons.

**ProForm BRAND XP Joint Compound** – A pre-mixed all-purpose joint compound formulated for additional mold resistance. Can be used with XP Gypsum Board to construct wall or ceiling systems with enhanced resistance to mold. Available in 61.7 lb. pails and 50 lb. cartons.

**ProForm BRAND Multi-Use Joint Compound** – A multi-use ready-mix joint compound designed for all phases of drywall finishing: taping, fasteners, finishing, texturing, trims and cornerbead. Available in 3.5 gal. or 4.5 gal. cartons or 4.5 gal. pails. West Coast only: 46 lb. cartons.

**ProForm BRAND Lite Joint Compound** – A lightweight joint compound designed to be used for finishing gypsum board joints, spotting fasteners, finishing cornerbead and texturing. ProForm Lite is designed to make your job easier. Approximately 30% lighter

than conventional compounds, Lite pulls and sands easier and reduces shrinkage by up to 20%. Available in 4.5 gal. pails or 3.5 gal. and 4.5 gal. cartons. West Coast only: 3.59 gal. cartons.

**ProForm BRAND Ultra Joint Compound** – A lightweight joint compound designed to be used for finishing gypsum board, spotting fasteners and finishing cornerbead. ProForm Ultra is approximately 50% lighter than conventional ready mix and approximately 30% lighter than other lightweight products. Ultra provides a superior finish with less pocking and excellent sanding characteristics and is the lowest shrinkage ready mix on the market (10-14%). Available in 4.5 gal. pails or 3.5 gal. and 4.5 gal. cartons.

**ProForm BRAND Taping Joint Compound** - A ready-mix joint compound designed to enhance bond when embedding joint tape or when applying tape-on corner bead and accessories. Taping compound is also an excellent product to enhance bond when laminating gypsum board. Available in 46 lb. cartons.

**ProForm BRAND Topping Joint Compound** - Designed specially as a finish used over joint compound. It is not recommended for embedding paper tape or the first coat over cornerbeads. It exhibits easy working and spreading characteristics and is suitable for floating or finishing taped joints, spotting nail or screw heads and the finish coats over cornerbead. Its excellent sanding qualities make it preferred as a finishing compound. Topping Compound can also be used for texturing. Available in 61.7 lb. pails or 50 lb. and 61.7 lb. cartons. West Coast only: 49 lb. cartons.

**ProForm BRAND Triple-T Compound (Taping, Topping, Texturing)** - An all-purpose, powder compound used for embedding tape, for finishing and for texturing. Available in 25 lb. bags.

**ProForm BRAND Texture Grade Joint Compound** - An all-purpose ready-mixed material specially formulated for texturing walls and ceilings. Use to create a variety of textures, the most typical are Spray Spatter, Spatter Knockdown, Orange Peel and Skip Trowel. Bonds well with many surfaces including gypsum board, gypsum plaster and above grade interior concrete/masonry. Available in 61.7 lb. pails or 50 lb. cartons.

#### Storage, Ready-Mix

Storage life varies with climactic conditions, up to 6 months under good conditions. Store compound away from extreme cold or heat to avoid accelerated aging. Regularly check production dates and rotate inventory on a first-in, first-out plan.

If Ready-Mix freezes, allow material to thaw at room temperature for at least 24 hours. When thawed, turn the container upside-down for at least 15 minutes. Turn pail right side up, remove lid, and immediately remix with an electric drill. Ready-Mix should be lump free and ready to use within 1 minute. Discard all Ready-Mix that does not remix to a lump free consistency.

#### Stacking

Ready-Mix pails or cartons should not be stacked more than two pallets in height.

**ProForm BRAND Sta-Smooth Joint Compound** - A special setting (hardening) type compound that is not affected by humidity once it has set and dried. It was developed for use in the Sta-Smooth System to reduce joint deformities such as ridging and beading. Sta-Smooth compound firmly bonds the tape to the board and the Sta-Smooth board edges to each other. Sta-Smooth compound is suitable for filling voids left in above-grade interior concrete. Required for finishing joints on exterior soffit board.

Sta-Smooth compounds are recommended for use in poor drying conditions. Recoating characteristics save trips to jobs. Product exhibits low shrinkage making it excellent for pre-filling and quick patches.

#### LIMITATIONS

Sta-Smooth should not be applied over moist surfaces or surfaces subject to moisture. Remove all grease, dirt and form oils from the concrete prior to application of the Sta-Smooth. Grind all projections from the concrete. Available in following types: 20, 45, 90, 210. (Numbers designate setting or hardening times in minutes.) Available in 25 lb. bags.

**ProForm BRAND Sta-Smooth Lite Joint Compound** - A lightweight setting compound offering the advantages of a hardening compound, but also sandable. Available in set times of 5, 20, 45, 90, 210 minutes in 18 lb. bags.

**ProForm BRAND Sta-Smooth HS Joint Compound (High Strength)** - Developed for use in the manufactured housing industry. A hardening or setting compound which develops high early strength. Available in set times of 20, 30, 45, 60 and 90 minutes. Available in 25 lb. bags.

**Storage, Setting Compound** - Storage life varies with climactic conditions. With good indoor storage - up to 12 months, high humidity - 6 months maximum.

#### JOINT TAPES

**ProForm BRAND Joint Tape** - Joint tape conceals and reinforces gypsum board joints. The tape is buffed on both sides to ensure the best working qualities and bond. A center creasing process allows easy folding for use at corners. Available in 75', 250' and 500' rolls.

#### ProForm BRAND Multi-Flex Tape Bead

- A combination of joint tape and metal strips laminated to form an outside or inside corner for gypsum board. It is particularly recommended for inside corners on cathedral ceilings, kneewalls, stairways, or any outside or inside corner less or greater than 90°F. It is applied with the metal side to the face of the gypsum board and is embedded into the joint compound, 100 ft. per roll.

**ProForm BRAND Fiberglass Mesh Tape** - A 1.9" wide, self-adhering fiberglass tape for use with Sta-Smooth compounds. 300' per roll. Not recommended for use with drying type compounds.

Varying weather conditions can impact both the quality and appearance of taped drywall joints. Relative humidity, plus temperature, will affect the working characteristics of all joint compounds.

For example, cool wet weather will slow down the drying process while hot, dry weather hastens the drying process. Exposure to winds, breezes or drafts can also affect the performance of joint compounds. Typical problems from improper drying can be cracking, excessive shrinkage, ridging and beading, banding or bond failure.

Proper precautions at the job site should always be taken to minimize the adverse effects of weather on drying. These precautions will ultimately solve the application time and expense from call backs and rework.

## TECHNICAL DATA

### COVERAGE TABLE

Product	Container	Approx. Coverage*
<b>ProForm All-Purpose</b>	47 lbs. (21.3 kg) carton	130-140 lbs./1000 sq. ft. (59-63 kg/93 sq. m.)
	48 lbs. (21.8 kg) carton	
	50 lbs. (22.7 kg) carton	
	61.7 lbs. (28 kg) pail, carton	
<b>ProForm XP</b>	61.7 lb. (28 kg) pail 50 lb. (22.7 kg) carton	
<b>ProForm Taping</b>	46 lb. (20.8 kg) carton	65-70 lbs./1000 sq. ft. (33kg/93 sq. m.)
<b>ProForm Topping</b>	49 lbs. (22.2 kg) carton	
	50 lbs. (22.7 kg) carton	
	61.7 lbs. (28 kg) pail, carton	
<b>ProForm Multi-Use</b>	4.5 gal. (17 L) pail, carton 3.5 gal. (13 L) carton	
<b>ProForm Lite</b>	4.5 gal. (17 L) pail, carton 3.5 gal. (13 L) carton	8.2 gal./1000 sq. ft. (33 L/93 sq. m.)
<b>ProForm Ultra</b>	4.5 gal. (17 L) pail, carton 3.5 gal. (13 L) carton	
<b>Dry Powder Triple-T Compound</b>	25 lbs. (11 kg) bag	55-65 lbs./1000 sq. ft. (25-29 kg/93 sq. m.)
<b>Dry Powder Setting Types</b>	25 lbs. (11 kg) bag	45-55 lbs./1000 sq. ft. (20-25 kg/93 sq. m.)
	Sta-Smooth	
	Sta-Smooth HS Sta-Smooth Lite	
	18 lbs. (8 kg) bag	

\*Material usage increases with above-average use of cornerbeads.

## SPECIFICATIONS

THE FOLLOWING PARAGRAPHS ARE FOR INSERTION INTO SECTIONS OF GENERIC SPECIFICATIONS OR GENERIC/PROPRIETARY SPECIFICATIONS COVERING GYPSUM BOARD ACCESSORIES. THE NATIONAL GYPSUM PRODUCT NAME FOLLOWS THE GENERIC DESCRIPTION IN PARENTHESES.

### PART 2 PRODUCTS

#### 2.01 ACCESSORIES

##### A. Joint Treatment:

1. Tape: 2 1/16" wide paper reinforcing tape (ProForm BRAND Joint Tape).
2. Tape: 2" wide paper reinforcing tape with metal strips laminated along the center crease to form inside and outside corners (ProForm BRAND Multi-Flex Tape Bead).
3. Tape: 1.9" wide self-adhering fiberglass tape (ProForm BRAND Fiberglass Mesh Tape).
4. Compound: Drying type pre-mixed compound (ProForm BRAND All Purpose Joint Compound, regular grade and machine grade, ProForm BRAND Topping Joint Compound, ProForm BRAND Lite Joint Compound, ProForm BRAND Ultra Joint Compound and ProForm BRAND XP Joint Compound, and ProForm BRAND Taping Joint Compound).
5. Compound: Drying type job mixed compound (ProForm BRAND Triple-T Compound).
6. Compound: Setting type job mixed chemical-hardening compound (ProForm BRAND Sta-Smooth Joint Compound, ProForm BRAND Sta-Smooth Lite Joint Compound and ProForm BRAND Sta-Smooth HS Joint Compound (High Strength)).

### PART 3 EXECUTION

#### 3.01 INSTALLATION

- A. General: In accordance with the manufacturer's recommendations, National Gypsum Company "Gypsum Construction Guide."
- B. Specific: For specific application recommendations using Joint Treatment products refer to submittal sheets. Refer to:
  - ProForm BRAND All Purpose Joint Compound 110778
  - ProForm BRAND XP Joint Compound 110965
  - ProForm BRAND Multi-Use Joint Compound 110685
  - ProForm BRAND Lite Joint Compound 110779
  - ProForm BRAND Topping Joint Compound 110777
  - ProForm BRAND Sta-Smooth Joint Compound 110626
  - ProForm BRAND Sta-Smooth Lite Joint Compound 110627
  - ProForm BRAND Sta-Smooth HS Joint Compound 110628

You may obtain copies of these sheets and all product submittal sheets directly by calling 1-800-NATIONAL (1-800-628-4662).

### Joint Compound Drying Time Guide Per GA-236

*Approximate Drying Times: All Purpose/Lite Ready-Mix Joint Compound*

R.H.	Temperature						
	32°	40°	50°	60°	70°	80°	100°
0%	38/H	28/H	19/H	13/H	9/H	6/H	3/H
20%	2/D	34/H	23/H	16/H	11/H	8/H	4/H
40%	2.5/D	44/H	29/H	20/H	14/H	10/H	5/H
50%	3/D	2/D	36/H	24/H	17/H	12/H	6/H
60%	3.5/D	2.5/D	42/H	29/H	20/H	13.5/H	8/H
70%	4.5/D	3.5/D	2.25/D	38/H	26/H	19.5/H	10/H
80%	7/D	4.5/D	3.25/D	2.25/D	38/H	27/H	14/H
90%	13/D	9/D	6/D	4.5/D	3/D	49/H	26/H
98%	53/D	37/D	26/D	18/D	12/D	9/D	5/D

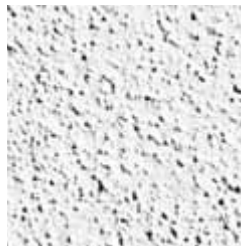
Note: R.H. = Relative Humidity D = Days (24 hour period) H = Hours

The chart above is a helpful guide in determining approximate drying times for joint compounds under a variety of humidity/temperature conditions. Shaded area is below the minimum application temperature requirement of 50° F and is not recommended for the application of joint compound.

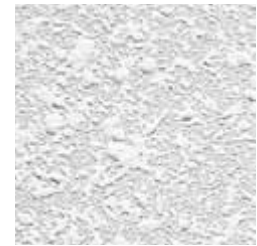
► DESCRIPTION

**ProForm BRAND Perfect Spray**

A decorative texture product for fast spray application to interior ceiling surfaces. Its shredded polystyrene aggregate gives this texturing product greater whiteness, better hide and bold accent. Recommended for interior ceilings that are formed of new or previously painted gypsum board or monolithic concrete or plaster. Available coarse, medium, and fine (40 lb. bag).



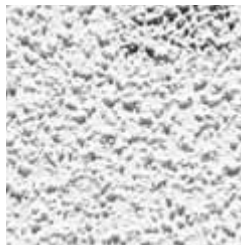
PROFORM BRAND  
PERFECT SPRAY  
TEXTURE-FINE



PROFORM BRAND  
PERFECT SPRAY  
EM - ORANGE PEEL

**ProForm BRAND Perfect Spray EM**

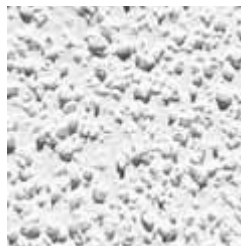
Perfect Spray EM is a non-aggregated texture product used to create a wide range of wall surfaces. When used in conjunction with textured ceilings Perfect Spray EM can be applied without overspray affecting the ceiling previously sprayed with (aggregated) Perfect Spray. By adjusting mixture consistency and/or varying the atomizing pressure, Perfect Spray EM creates an almost endless variety of textures, the most typical of which are Spray Spatter, Spatter Knockdown and Orange Peel. Surfaces can be finished with a coat of paint. Perfect Spray EM (nonaggregated) is specially formulated for easy mixing and easy pumping and is available in 50 lb. bags.



PROFORM BRAND  
PERFECT SPRAY  
TEXTURE-MEDIUM



PROFORM BRAND  
PERFECT SPRAY  
EM - SPATTER



PROFORM BRAND  
PERFECT SPRAY  
TEXTURE-COARSE



PROFORM BRAND  
PERFECT SPRAY  
EM - SPATTER +  
KNOCKDOWN

**Perfect Spray EM Texture Application**

Texturing can be, depending on desired pattern, a single- or multiple-coat operation using a spray texture gun fed by a piston or Moyno-type pump. An Orange Peel Finish is achieved with a high atomizing pressure and thin mix. A Spatter Finish uses a low atomizing pressure and heavy mix. Other finishes can be created by combining methods in two coat operations or troweling spatter patterns before fully dried (Spatter Knockdown).

**Caution:** Where a vapor retarder has been installed above a gypsum board ceiling, adequate ventilation must be provided during the drying period. This precaution is necessary in order to minimize the possibility of gypsum board sagging due to moisture absorption.

09 29 00

**NOTE:** Surfaces must be primed with a sealing primer.

**APPLICATION GYPSUM BOARD**

Surfaces, including joint-treated areas, must be smooth, clean and dry. First apply a coat of sealing primer. Allow primer to dry thoroughly, and maintain adequate drying conditions after application. Primer is to minimize sagging of gypsum board and discoloration or difference in sheen on ceiling surface. Add dry texture to water. Use a piston pump or Moyno-type pump with a texture gun. Minimum 3/4" I.D. material hose. A hopper-type gun with adequate air supply is also suitable. Typical coverage is 8-10 sq. ft. per lb. for aggregated and 10-30 lb. for nonaggregated

textures. Mask appropriate areas before spraying and promptly remove overspray from unprotected surfaces afterward. Follow the instructions of the spray equipment manufacturer for adjusting controls and cleaning. If a second coat is desired, allow the first coat to dry thoroughly.

**NOTE:** Gypsum board ceiling surfaces to be decorated with water-thinned spray texture shall be 1/2" or 5/8" thick and applied perpendicular to the framing. Framing shall not exceed 16" o.c. for 1/2" Regular Gypsum Board and 24" o.c. for 1/2" High Strength Ceiling Board and 5/8" gypsum board.

**CONCRETE:**

Allow concrete to cure for at least 28 days. Clip protruding wire ends and spot with rust-inhibitive primer. Remove all form oil, grease and dirt, or any loose or water-soluble material. Grind down any form ridges, and level any remaining unevenness with Sta-Smooth Joint Compound. Apply a coat of alkali-resistant, sealing primer over the entire surface to be textured.

**AVAILABILITY:** Contact your area National Gypsum sales representative for texture product availability.



## RECOMMENDATIONS

- A. For specific recommendations on use and application of Drywall Texture products, refer to Gold Bond submittal sheets as follows:  
 ProForm BRAND Perfect Spray 110629  
 ProForm BRAND Perfect Spray EM 110630  
 You may obtain copies of these sheets and all product submittal sheets directly by calling your local representative or 1-800-NATIONAL (1-800-628-4662).

## TECHNICAL DATA

### COVERAGE TABLE: SPRAY TEXTURES

ProForm Brand Texture	Application	Aggregate	Bag size	Mixing water per bag	Typical coverage per bag
Perfect Spray	ceilings	shredded polystyrene	40 lbs. (18 Kg.)	3-4 1/2 gal. (11.4 - 17.0 L)	300-400 sq. ft. (9.7 - 12.9 sq. m.)
Perfect Spray EM	walls ceilings	none	50 lbs. (23 Kg.)	4-5 gal. (15.1 - 18.9 L)	500-1,500 sq. ft. (16.2 - 48.4 sq. m)

**NOTE:** Perfect Spray, Perfect Spray EM  
 Burning Characteristics: Flame Spread-10, Smoke Developed-25.

## Materials Estimating & Coverage Guide

### ESTIMATING TABLE

	Ready Mix*	Sta-Smooth	Perfect Spray	Perfect Spray EM	Joint Tape
Quantity per 1,000 sq. ft. of wallboard	140 lbs.	55 lbs.	120 lbs.	50-100 lbs.	350 ft.

### ESTIMATING TABLE

Sq. Ft. of Wall/Ceiling	Wallboard Size			Ready Mix*/lbs.	Joint Tape/ft.	Sta-Smooth/lbs.	Nails/ct.	Screws/ct.
	4'x8'	4'x10'	4'x12'					
100	4	3	3	14	35	6	168	90
200	7	5	5	28	70	11	294	150
300	10	8	7	42	105	17	420	240
400	13	10	9	56	140	22	546	300
500	16	13	11	70	175	28	672	300
600	19	15	13	84	210	33	798	456
700	22	18	15	98	245	39	924	528
800	25	20	17	112	280	44	1050	600
900	29	23	19	126	315	50	1218	696
1000	32	25	21	140	350	55	1344	768
1100	35	28	23	154	385	61	1470	840
1200	38	30	25	168	420	66	1596	912
1300	41	33	28	182	455	72	1722	984
1400	44	35	30	196	490	77	1848	1056
1500	47	38	32	210	525	83	1974	1128

\*Based on ProForm BRAND All Purpose

# Levels of Gypsum Board Finish

The following has been excerpted from a consensus document prepared by the *Association of the Wall and Ceiling Industries-International (AWCI), Ceilings & Interior Systems Construction Association (CISCA), Gypsum Association (GA), and Painting and Decorating Contractors of America (PDCA)* as a guide to gypsum board finishing. The members of these international trade organizations are dedicated to providing the best possible job for the most reasonable cost. By incorporating the appropriate sections of this recommended specification into the project documents, the architect, general contractor, and building owner can better anticipate the final appearance of the decorated wall and ceiling system.

This has also been issued by the Gypsum Association as document GA-214.

## SCOPE

This recommended specification describes various levels of finish of gypsum board surfaces prior to the application of specific types of final decoration. The recommended level of finish of gypsum board wall and ceiling surfaces varies with the final decoration to be applied and can also be dependent on their location in a structure and the type of illumination striking the surface. Each recommended level of finish is described with typical applications.

## TERMINOLOGY

The following definitions are applicable to this document.

**Accessories:** Metal or plastic beads, trim, or moulding used to protect or conceal corners, edges, or abutments of the gypsum board construction.

**Critical Lighting:** Strong sidelighting from windows or surface-mounted light fixtures. **syn** severe lighting.

**Drywall Primer:** A paint material specifically formulated to fill the pores and equalize the suction

difference between gypsum board surface paper and the compound used on finished joints, angles, fastener heads, and accessories and over skim coatings.

**Joint Photographing:** The shadowing of the finished joint areas through the surface decoration. **syn** telegraphing.

**Skim Coat:** A thin coat of joint compound, or a material manufactured especially for this purpose, applied over the entire surface to fill imperfections in the joint work, smooth the paper texture, and provide a uniform surface for decorating. Excess compound is immediately sheared off, leaving a film of skim coating compound completely covering the paper.

**Spotting:** To cover fastener heads with joint compound.

**Texture:** A decorative treatment of gypsum board surfaces.

**Texturing:** Regular or irregular patterns typically produced by applying a mixture of joint compound and water, or proprietary texture materials including latex base texture paint, to a gypsum board surface previously coated with primer/sealer.

## LEVELS OF FINISH

The following levels of finish are established as a guide for specific final decoration. The minimum requirements for each level shall be as described herein.

### LEVEL 0

No taping, finishing, or accessories required.

*This level of finish may be useful in temporary construction or whenever the final decoration has not been determined.*

### LEVEL 1

All joints and interior angles shall have tape set in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.

*Frequently specified in plenum areas above ceilings, in attics, in areas*

*where the assembly would generally be concealed, or in building service corridors, and other areas not normally open to public view. Accessories optional at specifier discretion in corridors and other areas with pedestrian traffic.*

*Some degree of sound and smoke control is provided; in some geographic areas this level is referred to as "fire-taping." Where a fire-resistance rating is required for the gypsum board assembly, details of construction shall be in accordance with reports of fire tests of assemblies that have met the fire-rating requirement. Tape and fastener heads need not be covered with joint compound.*

### LEVEL 2

All joints and interior angles shall have tape embedded in joint compound and wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Fastener heads and accessories shall be covered with a coat of joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable. Joint compound applied over the body of the tape at the time of tape embedment shall be considered a separate coat of joint compound and shall satisfy the conditions of this level.

*Specified where water-resistant gypsum backing board (ASTM C 1396) is used as a substrate for tile; may be specified in garages, warehouse storage or other similar areas where surface appearance is not of primary concern.*

### LEVEL 3

All joints and interior angles shall have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Note: It

is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes. See painting/wallcovering specification in this regard.

*Typically specified in appearance areas which are to receive heavy- or medium-texture (spray or hand applied) finishes before final painting, or where heavy-grade wallcoverings are to be applied as the final decoration. This level of finish is not recommended where smooth painted surfaces or light to medium wallcoverings are specified.*

### LEVEL 4

All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes. See painting/wallcovering specification in this regard.

*This level should be specified where flat paints, light textures, or wallcoverings are to be applied.*

*In critical lighting areas, flat paints applied over light textures tend to reduce joint photographing. Gloss, semi-gloss, and enamel paints are not recommended over this level of finish.*

*The weight, texture, and sheen level of wallcoverings applied over this level of finish should be carefully evaluated. Joints and fasteners must be adequately concealed if the wallcovering material is lightweight, contains limited pattern, has a gloss finish, or any combination of these finishes is present. Unbacked vinyl wallcoverings are not recommended over this level of finish.*

**LEVEL 5**

All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. A thin skim coat of joint compound, or a material manufactured especially for this purpose, shall be applied to the entire surface. The surface shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of finish paint. See painting specification in this regard.

*This level of finish is highly recommended where gloss, semi-gloss enamel or nontextured flat paints are specified or where severe lighting conditions occur.*

*This highest quality finish is the most effective method to provide a uniform surface and minimize the*

*possibility of joint photographing and of fasteners showing through the final decoration.*

**COMMENTS**

**Critical (Severe) Lighting Areas.**

Wall and ceiling areas abutting window mullions or skylights, long hallways, or atriums with large surface areas flooded with artificial and/or natural lighting are a few examples of critical lighting areas. Strong sidelighting from windows or surface-mounted light fixtures may reveal even minor surface imperfections. Light striking the surface obliquely, at a very slight angle, greatly exaggerates surface irregularities. If critical lighting cannot be avoided, the effects can be minimized 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: gloss, semi-gloss, and enamel finishes highlight surface defects; textures hide minor imperfections.

**Manufacturer Recommendations.**

The recommendations of individual manufacturers of gypsum board, joint tapes and compounds, accessories, drywall primers, wallcoverings, adhesives, texture materials, and paints may vary from what is recommended herein and as such are not a part of this recommended specification.

**DRYWALL PRIMER**

Applied as a first coat to the entire prepared gypsum board surface with brush, roller, or spray, prior to decoration. Where final appearance is critical, the application of high quality, high solids, drywall primer will minimize most decorating problems.

*For finish paints:* A good quality, white, latex drywall primer formulated with higher binder solids, applied undiluted, is typically specified for new gypsum board surfaces prior to the application of texture materials and gloss, semi-gloss, and flat latex wall paints.

An alkali and moisture-resistant primer and a tinted enamel undercoat may be required under enamel paints. Consult with the finish paint manufacturer for specific recommendations.

*For wallcoverings:* White, self-sizing, water base, "universal" (all purpose) wallcovering primers have recently been introduced into the marketplace for use on new gypsum board surfaces. These products are claimed to minimize damage if wallcoverings are subsequently removed, bind poor latex paint, allow hanging over glossy surfaces and existing vinyls, hide wall colors, and to be water washable.

**TEXTURING**

Texture material is applied by brush, roller, spray, or trowel, or a combination of these tools, depending on the desired result. Textured wall surfaces are normally overpainted with the desired finish; overpainting of textured ceiling surfaces may not be deemed necessary where an adequate amount of material is applied to provide sufficient hiding

**NATIONAL GYPSUM JOINT TREATMENT PRODUCTS USED TO ACHIEVE THE LEVELS OF FINISH**

	SETTING TYPES			Dry Powder	DRYING TYPES			
	Sta-Smooth				Ready-Mix			
	High Strength	Lite	Regular	Triple-T	All Purpose	Topping Compound	Lite	Multi-Use
<b>Level 1</b> Tape Embedded	•	•	•	•	•		•	•
<b>Level 2</b> Tape Cover	• •	• •	• •	• •	• •	•	•	• •
<b>Level 3</b> Tape Cover Fill Primer	• •	• • •	• •	• • •	• • •	•	•	• • •
<b>Level 4</b> Tape Cover Fill Finish Primer	• •	• • • •	• •	• • • •	• • • •	•	•	• • • •
<b>Level 5</b> Tape Cover Fill Finish Skim Primer	• •	• • • • •	• •	• • • • •	• • • • •	•	•	• • • • •

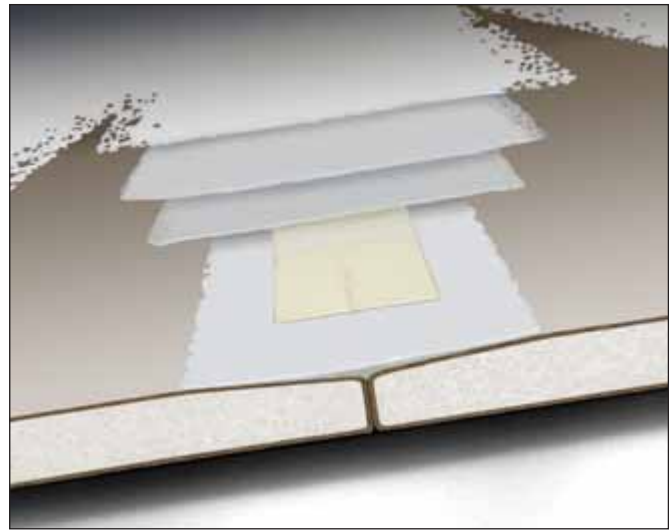
09 29 00

properties. A drywall primer may not be required under certain proprietary texture materials; consult with the manufacturer of the texture materials for specific recommendations.

**Tool, Marks and Ridges.** A smooth surface may be achieved by lightly sanding or wiping joint compound with a dampened sponge. Care shall be exercised to ensure that the nap of the gypsum board facing paper is not raised during sanding operations. For additional information on the finishing of gypsum board surfaces consult ASTM Standard C 840.

## A Word About Drywall Primer:

The guidelines for these levels of finishing were prepared by AWCI, CISCA, GA and PDCA. The specification describes a drywall primer as "a paint material specifically formulated to fill the pores and equalize the suction difference between gypsum board surface paper and the compound used on finished joints, angles, fastener heads and accessories over skim coatings."



## SPECIFICATIONS

### SECTION 09 29 00

#### GYPSUM BOARD

THE FOLLOWING PARAGRAPHS ARE FOR INSERTION INTO SECTIONS OF GENERIC SPECIFICATIONS OR GENERIC/PROPRIETARY SPECIFICATIONS COVERING GYPSUM BOARD PRODUCTS. THE NATIONAL GYPSUM COMPANY PRODUCT NAME FOLLOWS THE GENERIC DESCRIPTION IN PARENTHESES.

#### PART 1 GENERAL

##### 1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  1. C 840, Specification for Application and Finishing of Gypsum Board.
  2. C 1280, Specification for Application of Gypsum Sheathing Board.
  3. C 1396, Specification for Gypsum Board
  4. C 1629, Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.
- B. Gypsum Association (GA):
  1. GA-214, Recommended Specifications: Levels of Gypsum Board Finish.
  2. GA-216, Application and Finishing of Gypsum Panel Products.

#### PART 2 PRODUCTS

##### 2.02 MATERIALS

- A. Regular Gypsum Board: A gypsum core wall board surfaced with paper on front, back, and long edges and complying with ASTM C 1396 (Gold Bond BRAND Gypsum Board).
  1. Thickness: 1/4", 3/8" or 1/2"
  2. Width: 4'
  3. Length: 6' through 16'
  4. Edges: Square, Tapered, or Beveled Taper (St-Smooth Edge)
- B. Mold-Resistant Gypsum Board: A gypsum core wall panel with additives to enhance the water resistance of the core; surfaced with moisture/mold/mildew-resistant paper on front, back and long edges and complying with ASTM C 1396 (Gold Bond BRAND XP Gypsum Board).
  1. Thickness: 1/2"
  2. Width: 4'
  3. Length: 8, 10' or 12'
  4. Edges: Square or Tapered
  5. Mold and Mildew Resistance: Panel score of 10, when tested in accordance with ASTM D 3273
- C. Fire-Resistant Gypsum Board: A gypsum core wall board with additives to enhance fire resistance of the core and surfaced with paper on front, back, and long edges and complying with ASTM C 1396, Type X.
  1. Thickness: 1/2" (Gold Bond BRAND Fire-Shield C Gypsum Board), 5/8" (Gold Bond BRAND Fire-Shield Gypsum Board), or 5/8" (Gold Bond BRAND Fire-Shield C Gypsum Board).
  2. Width: 4'
  3. Length: 6' through 16' (1/2" Fire-Shield C Gypsum Board, 5/8" Fire-Shield Gypsum Board) Length: 8' through 14' (5/8" Fire-Shield C Gypsum Board)
  4. Edges: Square, Tapered, or Beveled Taper (St-Smooth Edge)

- D. Fire-Resistant Mold-Resistant Gypsum Board: A gypsum core wall panel with additives to enhance the fire resistance of the core and the water resistance of the core; surfaced with a moisture/mold/mildew resistant paper on the front, back and long edges and complying with ASTM C 1396, Type X.
1. Thickness: 1/2" (Gold Bond BRAND XP Fire-Shield C Gypsum Board) 5/8" (Gold Bond BRAND XP Fire-Shield Gypsum Board)
  2. Width: 4'
  3. Length: 8', 10' or 12'
  4. Edges: Square or Tapered
  5. Mold and Mildew Resistance: panel score of 10, when tested in accordance with ASTM D 3273
- E. Fire-Resistant Abuse-Resistant Mold-Resistant Gypsum Board: A gypsum core wall panel with additives to enhance the fire resistance, surface indentation resistance and impact resistance of the core and surfaced with abrasion, moisture/mold/mildew-resistant paper on the front, back and long edges and complying with ASTM C 1396, Type X. (Hi-Abuse BRAND XP Fire-Shield Gypsum Board)
1. Thickness: 5/8"
  2. Width: 4'
  3. Length: 8' through 12'
  4. Edges: Tapered
  5. Surface Abrasion Resistance: Not greater than 0.009" depth when tested at 50 cycles in accordance with ASTM D 4977, Modified.
  6. Indentation Resistance: Not greater than 0.132" depth when tested at an impact load of 72 in.-lbs. in accordance with ASTM D 5420.
  7. Impact/Penetration Resistance: Not less than 210 ft.-lbs. when tested in accordance with ASTM E 695, modified.
  8. Mold and Mildew Resistance: Panel score of 10, when tested in accordance with ASTM D 3273.
- F. Fire-Resistant Impact/Penetration-Resistant Mold-Resistant Gypsum Board: A gypsum core wall panel with additives to enhance the fire resistance, water resistance, surface indentation resistance and impact resistance of the core; surfaced with abrasion, moisture/mold/mildew-resistant paper on the front, back and long edges with a fiberglass mesh embedded in the board to enhance impact/penetration resistance and complying with ASTM C 1396, Type X. (Hi-Impact BRAND XP Fire-Shield Gypsum Board)
1. Thickness: 5/8"
  2. Width: 4'
  3. Length: 8' through 12'
  4. Edges: Tapered
  5. Surface Abrasion Resistance: Not greater than 0.009" depth when tested at 50 cycles in accordance with ASTM D 4977, Modified.
  6. Indentation Resistance: Not greater than 0.114" depth when tested at an impact load of 72 in.-lbs. in accordance with ASTM D 5420.
  7. Impact/Penetration Resistance: Not less than 720 ft.-lbs. when tested in accordance with ASTM E 695, modified.
  8. Mold and Mildew Resistance: Panel score of 10, when tested in accordance with ASTM D 3273.
- G. Gypsum Ceiling Board: A gypsum core ceiling board with additives to enhance the sag resistance of the core and surfaced with paper on front, back, and long edges; and complying with ASTM C 1396 (High Strength BRAND Ceiling Board).
1. Thickness: 1/2"
  2. Width: 4'
  3. Length: 6' through 16'
  4. Edges: Square, Tapered, or Beveled Taper (Sta-Smooth Edge)
- H. Gypsum Sheathing Board: A gypsum core sheathing board with additives to enhance the water resistance of the core; surfaced with water repellent paper on front, back, and long edges; and complying with ASTM C 1396.
1. Regular Board, 4' by 8' or 9' or 10': 1/2" thick with square edge (Gold Bond BRAND Jumbo Gypsum Sheathing).
  2. Fire-Rated Board (Type X): 5/8" thick by 4' wide by 8' or 9' or 10' long with additives in the core to enhance fire resistance (Gold Bond BRAND Fire-Shield Jumbo Gypsum Sheathing).
- I. Fire-Resistant Gypsum Shaftliner Board: A gypsum core shaftwall board with additives to enhance fire resistance of the core and surfaced with water repellent paper on front, back, and long edges and complying with ASTM C 1396, Type X (Gold Bond BRAND Fire-Shield Shaftliner).
1. Thickness: 1"
  2. Width: 2'
  3. Length: 7' through 14'
  4. Edges: Beveled
- J. Fire and Mold-Resistant Gypsum Shaftliner Board: A gypsum core shaftwall board with additives to enhance fire resistance of the core and surfaced with a moisture/mold/mildew resistant paper on front, back, and long edges; and complying with ASTM C 1396, Type X (Gold Bond BRAND Fire-Shield Shaftliner XP).
1. Thickness: 1"
  2. Width: 2'
  3. Length: 7' through 14'
  4. Edges: Beveled
  5. Mold and Mildew Resistance: Panel score of 10, when tested in accordance with ASTM D 3273
- K. Exterior Gypsum Soffit Board: A gypsum core soffit board with additives to enhance the sag resistance of the core; surfaced with water repellent paper on front, back, and long edges; and complying with ASTM C 1396 (Gold Bond BRAND Exterior Soffit Board).
1. Thickness: 1/2"
  2. Width: 4'
  3. Length: 8' through 12'
  4. Edges: Beveled Taper (Sta-Smooth Edge)
- L. Fire-Resistant Exterior Gypsum Soffit Board: A gypsum core soffit board with additives to enhance the fire resistance and the sag resistance of the core; surfaced with water repellent paper on front, back, and long edges; and complying with ASTM C 1396, Type X (Gold Bond BRAND Fire-Shield Exterior Soffit Board).
1. Thickness: 5/8"
  2. Width: 4'
  3. Length: 8' through 12'
  4. Edges: Beveled Taper (Sta-Smooth Edge)

M. Flexible Gypsum Board: A gypsum core wall panel with additives to enhance flexibility surfaced with paper on front, back and long edges and complying with ASTM C 1396 (High Flex BRAND Gypsum Board).

1. Thickness: 1/4"
2. Width: 4'
3. Length: 8' through 12'
4. Edges: Slightly Tapered

N. Fire-Resistant Vinyl laminated Gypsum Grid Board: A gypsum core lay-in ceiling panel with additives to enhance the sag and fire resistance of the core; surfaced with paper on the front and back and finished on the front with a 2-mil, white, stipple textured vinyl laminate; and complying with ASTM C 1396, Type X, Class 1; E 1264 Type XX, patterns E, G (Gridstone BRAND Ceiling Panel).

1. Thickness: 1/2"
2. Width and Length: 2' x 2' and 2' x 4'
3. Edges: Square

O. Fire-Resistant Sealed Vinyl Laminated Gypsum Grid Board: A gypsum core lay-in ceiling panel with additives to enhance the sag and fire resistance of the core and sealed on face, back and long edges with a 2-mil rigid vinyl film, exposed edges are factory sealed with a durable coating providing a completely sealed panel; and complying with ASTM C 1396, Type X, Class 1, E 1264, Type XX, patterns E, G (Gridstone BRAND CleanRoom Ceiling Panel).

1. Thickness: 1/2"
2. Width and Length: 2' x 2' and 2' x 4'
3. Edges: Square

P. Vinyl Laminated Gypsum Grid Board: A gypsum core lay-in ceiling panel with additives to enhance the sag resistance of the core; surfaced with paper on the front and back and finished on the front with a 2-mil, white, stipple textured vinyl laminate; and complying with ASTM C 1396, Class 1, E 1264, Type XX, patterns E, G (Gridstone BRAND Hi-Strength Ceiling Panel).

1. Thickness: 5/16"
2. Width and Length: 2' x 2' and 2' x 4'
3. Edges: Square

Q. Joint Treatment:

1. Tape: 2 1/16" wide paper reinforcing tape (ProForm BRAND Joint Tape).
2. Tape: 2" wide paper reinforcing tape with metal strips laminated along the center crease to form inside and outside corners (ProForm BRAND Multi-Flex Tape Bead).
3. Tape: 2" wide self-adhering fiberglass tape (ProForm BRAND Fiberglass MeshTape).

4. Compound: Drying type pre-mixed compound (ProForm BRAND Multi-Use Joint Compound, ProForm BRAND All Purpose Joint Compound, regular grade and machine grade, ProForm BRAND Lite Joint Compound, ProForm BRAND Ultra Joint Compound, ProForm BRAND XP Joint Compound and ProForm BRAND Taping Joint Compound).

5. Compound: Drying type job mixed vinyl base compound (ProForm BRAND Triple-T Compound).

6. Compound: Drying type vinyl base topping compound, pre-mixed (ProForm BRAND Topping Joint Compound).

7. Compound: Setting type job mixed chemical-hardening compound (ProForm BRAND Sta-Smooth Joint Compound, ProForm BRAND Sta-Smooth Lite Joint Compound, and ProForm BRAND Sta-Smooth HS Joint Compound).

R. Textured Coatings:

1. Ceiling Coating: Compound of minerals and clays for mixing with a mineral or polystyrene aggregate and water (ProForm Brand Perfect Spray Texture.)

2. Wall Coating: Compound of minerals and clays for mixing with water (ProForm BRAND Perfect Spray EM Texture).

## PART 3 EXECUTION

### 3.01 INSTALLATION

A. General: In accordance with ASTM C 840 and manufacturer's recommendations, "National Gypsum Construction Guide."



For additional information  
Phone **1-800-NATIONAL**  
**(1-800-628-4662)**