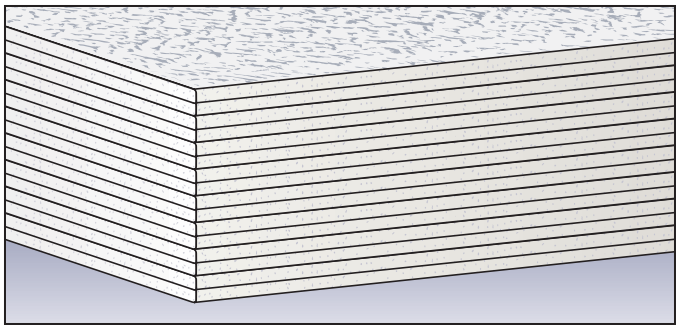
SEASPRAY® BRAND HI-STRENGTH MVR CEILING PANELS



GENERAL INFORMATION

Seaspray Hi-Strength MVR ceiling panels save you materials, time and money in manufactured housing ceiling installations. Seaspray Hi-Strength MVR gypsum ceiling panels provide an attractive textured ceiling and a code-approved moisture/vapor retarder, all in one easy-to-install product. The deeper texture of these noncombustible gypsum panels not only creates a bolder, more appealing look, but also helps to hide joints.

Use of Seaspray Hi-Strength MVR ceiling panels means no more vapor retarder paint to stock and apply. With quality ensured by National Gypsum's longstanding reputation, you can now meet HUD code requirements without concerns about over or underspraying. Most important, National Gypsum's competitive price means cost efficiency as well as production efficiency.

FEATURES/BENEFITS

- 5-year limited warranty against visible sag.
- Vapor retarder built into the texture finish ensures uniform performance without the risk of over or underspraying.
- Square-edged linear panels are coated with durable latex texture finish that resists surface marking.
- Bolder, heavier texture helps hide joints.
- Fire-resistant gypsum core panels are UL labeled and meet HUD Manufactured Home Construction and Safety Standards for homeowner security.
- Easy installation. Ceiling panel and vapor retarder in one eliminates the need for vapor retarder paint, polyethylene or kraft-face insulation, depending on application.
- Improved sag resistance.
- 24" o.c. foam adhesive attachment.
- Built-in vapor barrier.
- Hard painted surface.
- Easy touch-up.
- Vapor retarder characteristics meet code standards of 1 perm or less as required by HUD Manufactured Home Construction and Safety Standards, Section 3280.504(a). (Per NGC test PTL-4-88G.)

SPECIFICATIONS

Thickness: 5/16" and 1/2" nominal

Width: 4'
ASTM permissible variation: +0", - 3/32" (2.4 mm)

Lengths: 84"-192" (1/2" increments). ASTM permissible variation: +/- 1/4" (6.4 mm)

Corners: Square
ASTM permissible variation: +/- 1/8" (3.2 mm) in the full width of the board

Edges: Square

Weight:
5/16"– Approx. 1.3 lbs./sf
1/2"– Approx. 1.9 lbs./sf

Packaged:
5/16"– 60 pieces per skid
1/2"– 30 pieces per skid

Colorfastness: No significant color change with normal sunlight exposure. Test report available on request.

ASTM E 84 Surface Burning Characteristics
(Fire Hazard Classification)
Flame Spread: 15
Smoke Developed: 0

GENERAL APPLICATION

Note: If blown-in cellulose insulation is used, take care to follow insulation manufacturer's specifications on addition of water. Excess moisture in this insulation can cause Seaspray Hi-Strength MVR to sag.

Foam Method: *Make sure trusses are 24" o.c. or less.* After ceiling trusses are placed on gypsum board, foam adhesive should be applied per the manufacturer's instructions.

For a finished look, use either a vinyl spline or a flat wood batten over board joints.

Staple Method: *Make sure trusses are 24" o.c. or less. Staples are spaced 4" o.c. around the perimeter with the crown 1/4" from and parallel to board edge.* Rosette placement should not exceed 24" o.c. in the field of the board.

No vapor barrier is needed with Seaspray Hi-Strength MVR ceiling panels. Staple panel ends to the sideboards (rails). Lay out rafters (trusses) and nail sideboards to them. Then, staple panel edges to the framing. Staples must be driven flush with the Seaspray Hi-Strength MVR ceiling panel surface — either parallel or perpendicular (stitched) to adjoining edges. Drive screws through rosettes into the framing member. Be careful not to overdrive screws as it could result in stripped threads or broken board.

For specific applications and shear values, please refer to section titled "Shear Tests."

Note: Figure No. 1 (page 6) illustrates how to repair small holes in Seaspray Hi-Strength MVR panels.

holes or knots. (These may be cut for jack studs or blocking.) Drywall applied over twisted studs is under stress as it is hung and is much more likely to break or have joint cracks.

3. Consider use of 2x4 lumber for all bottom plates. This will raise costs slightly, but will offer much more rigidity against flexing along the wall length, especially near the axles and at the front and rear of the house.

4. Consider building "sandwich" beams from two pieces of 2x6 or 2x8 lumber, screwed or stapled together for use as headers over double or triple windows, steel-insulated entrance doors or sliding glass doors. At junction of this beam and all adjacent framing, use "Gang Nail" metal truss plate connectors to fasten. This will ensure adequate support for large openings. (See sketch below).

5. Consider use of 2x6 blocking in wall on each side of steel entrance door or large windows to add strength. (See sketch below.)

FASTENING

Gypsum board can be applied vertically or horizontally on walls. Use full sheets with window and door openings routed out. Nails shall be standard gypsum wallboard nails of sufficient length to penetrate wood framing a minimum of 3/4". Screws shall be standard gypsum wallboard screws of sufficient length to penetrate framing a minimum of 5/8". Adjust tools so fasteners will not be driven too deep, resulting in the face paper breaking. Recommended fastener spacing is 6" o.c. across top and bottom plates, 8" o.c. at wallboard joints and 12" o.c. on intermediate studs (between joints). Fasteners should not be closer than 3/8" to wallboard edges. Adhesive used may be either an approved white glue, urethane adhesive or construction adhesive.

For specific applications and shear values, please refer to section titled "Shear Tests."

The following tips may help to reduce any joint or stress cracks in taped and finished walls:

Joint Finishing

1. Stagger joints over wall area when hanging gypsum board. Avoid butt joints. Use full-size pieces of gypsum board, cutting or routing out door and window openings.

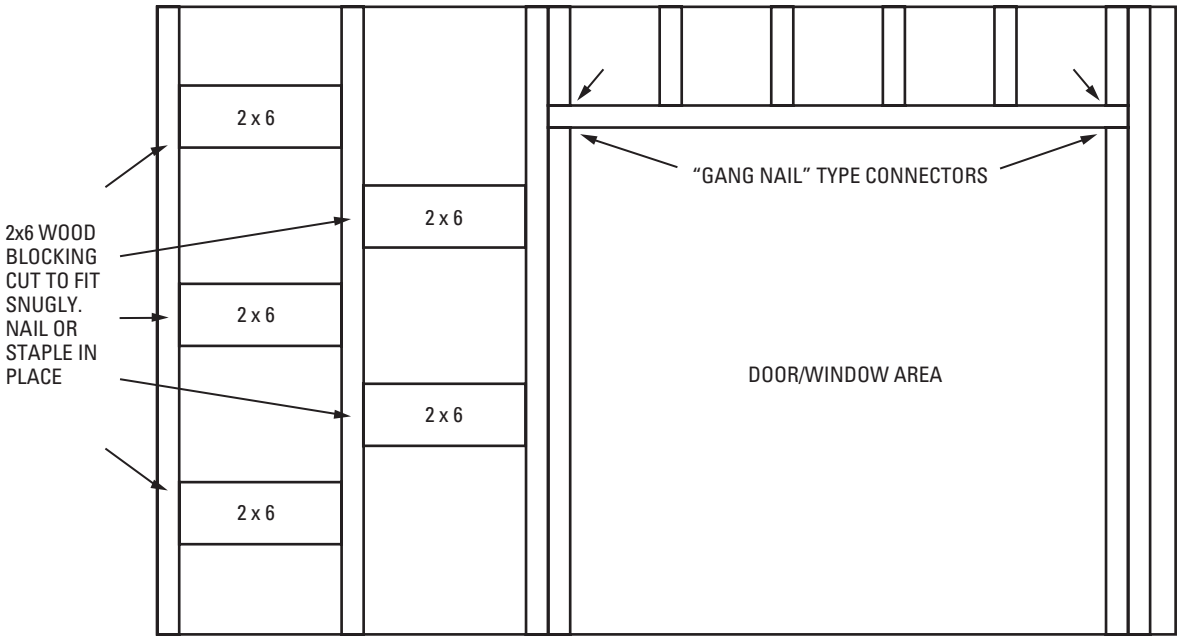
2. Consider using paper joint tape for joints on walls. With this type of tape, the joint area is mudded first, then the tape is "bedded" and excess mud removed. After the first coat is set, a second coat is applied to cover the tape and smoothed out. A third coat is applied and either wet or dry sanded as necessary to make the joint area completely smooth and ready for paint.

3. Be sure that all coats of joint compound are either set or dry before applying another coat of compound or paint.

FOR CRITICAL (SEVERE) LIGHTING AREA

Wall and ceiling areas abutting window mullions or skylights, long hallways or 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, decorating the surface with medium to heavy textures or using draperies and blinds that soften shadows. In general, gloss, semigloss and enamel finishes highlight surface defects; textures hide minor imperfections. Certain types of paint will require the use of a primer in order to obtain best results. Consult with the finish paint manufacturer for specific recommendations.

For total finishing and texturing information, please refer to the "Joint Compound" and "Spray Texture" sections.



SKETCH OF 2x6 BLOCKING IN WALLS, EACH SIDE OF HEAVY DOORS OR LARGE WINDOWS

SEASPRAY® BRAND MVR TOUCH-UP PAINT SYSTEM SPECS

Seaspray Hi-Strength MVR Ceiling Panels, like any other prefinished product, can be scuffed or damaged during handling and installation. Most touch-up can be avoided with close supervision and constant focus on minimizing damage through correct handling and installation.

IN-PLANT PROCEDURES TO REDUCE DAMAGE TO SEASPRAY HI-STRENGTH MVR CEILING PANELS:

- Use forklift extenders to unload trucks and move Seaspray units into the plant.
- Do not drag one board over another or down the ceiling jig.
- Do not drop one board over another unless both are aligned like pages in a book.
- Care must be taken by plant personnel while bringing items into the home.

WHERE SEASPRAY MVR TOUCH-UP IS NEEDED:

- There are two types of Seaspray MVR Touch-Up paint available: **aggregate** and **non-aggregate**. Each is tinted to match the board produced at that particular manufacturing plant.
- For best results, keep paint and board manufacturing dates within three months of each other. The touch-up paint should be stirred thoroughly before use.
- Before use of either paint, look at the damage and decide which paint would work best. If only a small scratch is involved, the non-aggregate paint will work well. If major scrapes or damage is involved, the aggregate paint is normally needed. With textured paint, the foam covered roller (such as Hyde Tools part #30430) or a small brush will apply the paint satisfactorily.
- Best results are achieved by covering only the damaged area. Do not repaint major areas of the panel unless necessary. For very small scratches, use the corner of the foam roller or a small artist's paintbrush. For larger areas, use only as much paint as is needed. If care is taken to only touch-up the affected area, normally it is not necessary to scrape off additional texture around the damaged area. If all texture is gone from an area, two or possibly three light coats will produce the best results. Do not try to apply one heavy coat, as this will be readily visible after drying.

REPAIR PROCEDURES

Minor Cracks With No Texture Loss: Using a small brush and brushing perpendicular to the crack, force the coating into the opening. Dabbing the coating with a fingertip is an acceptable alternative.

Minor Scratches With Minimal Texture Loss: Lightly dab the coating on the scratch with a small brush.

Major Cracks Aligned To The Linear Texture: Scrape off a nominal 1" wide path of the texture the length of the crack. Fill the crack with a setting compound or a putty-type caulking compound. Allow to dry. Loose board at the crack may require backing up and refastening to a framing member. Reapply the texture as needed with Seaspray MVR Touch-Up and roller.

Major Cracks Perpendicular To The Linear Texture: Same as above. You may use a brush if texture loss is not very wide.

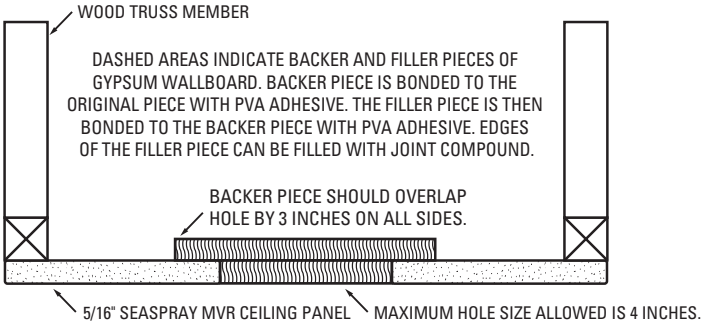
Major Texture Loss/Paper And Core Not Damaged: Reapply the texture to the damaged area using the rubber roller. Roll out the coating in the machine direction to align the new texture in the same direction as the original.

Major Panel Damage/Surface Paper Torn, Exposed Gypsum Core, Holes Through Entire Panel: Fill the area with a setting type compound and smooth the surface with a putty knife. Scrape the texture off the panel in the area immediately around the defect. Allow to set before topcoating with Seaspray MVR Touch-Up paint. Use a roller or a brush as needed. An alternate method is to fill with caulking compound. Allow to dry before coating.

Note: Very deep gouges or holes may require multiple coats of filler to reduce shrinkage or cracking. Allow to dry between coats.

CLEANUP

Tools may be cleaned with ordinary tap water. Use a mild soap solution to clean hands, brushes and rollers.



PATCH IN SEASPRAY CEILING ASSEMBLY WHEN BACK OF CEILING IS ACCESSIBLE.
MAXIMUM SIZE OF HOLE TO BE REPAIRED CANNOT EXCEED 4" IN DIAMETER. BACKING MATERIAL CAN BE WOOD OR GYPSUM. IT IS THERE TO PROVIDE A BACKER TO FASTEN THE PATCH.

FIGURE NO. 1