

Tremco/GP Gypsum Dens-Deck®

A Fiberglass Mat Faced, Moisture Resistant, Gypsum Roof Board

Composition: Tremco/GP Gypsum Dens-Deck® consists of a water resistant, silicone treated gypsum core, faced with embedded fiberglass mats on the top and bottom of the board. Dens-Deck meets ASTM C 1177/C 1177M, the Standard Specification for Glass Mat Gypsum Substrate for use as Sheeting.

Basic Uses: Tremco/GP Gypsum Dens-Deck is used as a non structural roof board in a variety of low slope roof system configurations. Dens-Deck is recommended as an over-layment board for isocyanurate insulation in cold process BUR and MB roof systems. Dens-Deck can be used as a substrate for Tremco Single Ply roof systems. Dens-Deck can be installed directly to structural roof decks such as steel and wood to improve application of fire resistance properties of the roofing assembly. Dens-Deck is also recommended as a substrate for vapor retarder systems.

Tremco/GP Gypsum Dens-Deck can be used in a variety of nonstructural roofing applications. Contact your local Tremco Representative for a list of approved applications.

Limitations:

When Dens-Deck is installed in a mechanically attached configuration, use fastener plates which have a flat upper and lower surface to minimize potential for damaging the fiberglass facer.

Do not apply Dens-Deck in hot bitumen in combination with a ply or membrane fully mopped in hot bitumen over the top of the same Dens-Deck board/layer.

Do not apply fully coated asphalt or modified bitumen in combination with base sheets directly to Dens-Deck in hot applied bitumen.

When fully mopping ply sheets direct to Dens-Deck, do not exceed mopping temperatures of 425°F.

Do not point a torch or hot air (above 425°F) directly to the Dens-Deck surface during roof membrane applications. Instead, heat sources must be applied evenly to the membrane materials.

Dimensions: Dens-Deck is available in truckload quantities in the following standard sizes:

1/4" x 4' x 8' (6mm x 1220mm x 2440mm), 60 pcs/pallet
1/2" x 4' x 8' (13mm x 1220mm x 2440mm), 50 pcs/pallet

| Product Advantages | |
|--------------------------------------|---|
| Features | Benefits |
| Fiberglass mat faced | <ul style="list-style-type: none"> Resistant to decay Strong, resistant delamination |
| Treated gypsum core | <ul style="list-style-type: none"> Moisture resistant Fire resistant |
| High compressive strength | <ul style="list-style-type: none"> Impact resistant Puncture resistant Excellent flute spanability |
| Available in 1/4" and 1/2" thickness | <ul style="list-style-type: none"> Can easily conform to surfaces or provide a rigid over/underlayment. |

The following sizes are available in truckload quantities on a custom order basis:

1/4" x 4' x 4' (6mm x 1220mm x 1220mm), 60 pcs/pallet
1/2" x 4' x 4' (13mm x 1220mm x 1220mm), 50 pcs/pallet

General Application Data: Roof replacement usually involves more complexities than new construction roofing. Often encountered are situations such as rusted/deteriorated decks, rotted wood components, rooftop equipment which cannot be shut down, and numerous other conditions.

The following application information is designed to serve as a general guide. Your local Tremco Representative will prepare detailed specifications based on the condition of your roof.

Structural Decks:

Must be properly designed and structurally sound.

Drainage:

Ponding conditions are unacceptable and will adversely affect the performance of any roofing system. If positive drainage does not exist, water removal from the roof surface must be facilitated by lowering drains, and/or installing drains, tapered insulation, or Tremco approved lightweight insulating concrete system.

Roof Board Storage: Roof boards must be dry and kept dry. When stored outdoors, stack roof boards on pallets at least 4 inches (100 mm) above the ground level. Upon receipt of roof board on the job site, remove the factory plastic packaging. Cover the top and sides of the roof board with waterproof tarpaulin (not polyethylene) and secure. Do not stack more than two pallets high.

Surface Preparation: Prior to installing the insulation and/or roof board, the substrate must be clean, dry and free of dust, dirt, oil, or other contaminants. Concrete and gypsum decks must be properly cured and sufficiently dry prior to installing insulation and/or roof Board.

INSTALLATION PROCEDURES: The use of FAS-n-FREE Adhesive for solvent free, fastener free insulation attachment is the preferred method of attachment unless otherwise specified. All board sizes of Dens-Deck are approved for application in FAS-n-FREE Adhesive. Dens-Deck can also be installed in a full mopping of Tremco Premium III Asphalt or ASTM D 312, Type III asphalt. Mechanical fasteners can also be used to secure Dens-Deck to structural roof decks.

Direct to Decks: For Tremco UL (Underwriters Laboratories) roof system classifications, when Dens-Deck (minimum 1/4" thick) is installed directly to a wood roof deck, the resulting deck assembly is considered a non-combustible roof deck per UL. The joints of the Dens-Deck must be offset 6 inches (150 mm) with the joints in the structural deck.

Dens-Deck can also be installed directly to steel, cement, wood fiber, gypsum, and concrete roof decks as a substrate



for vapor retarders or other roof membrane systems. Consult with your Tremco Representative for Tremco approved system combinations.

Overlayment: Dens-Deck can be specified as an overlayment for approved insulation boards, such as polyisocyanurate, wood fiber, and fiberglass insulation. Dens-Deck can be used as a substrate for Tremco cold process POWERply® MB and BURmastic® systems. Dens-Deck is also used as a substrate for adhered or mechanically attached Tremco Single Ply roof systems.

POWERply torch and heat welded systems can also be applied to Dens-Deck, provided the Dens-Deck is primed with an asphalt primer and the torch flame or hot air is not pointed directly at the Dens-Deck during application.

Hot applied BUR systems can be applied directly to Dens-Deck provided the bitumen mopping temperature does not exceed 425°F (218°C). Asphalt ply sheets with com-ply with ASTM D 2178 are approved for application direct to Dens-Deck. Fully coated asphalt base sheets and modified bitumen base sheets are not recommended for application direct to Dens-Deck in hot applied configurations.

Adhesive Application: Prime concrete and metal deck substrates with Tremprime WB. After primer has thoroughly dried applied FAS-n-FREE Adhesive to the substrate in ribbons of 1/2"-3/4" (13mm-19mm) diameter beads at the required coverage rate. Set Dens-Deck into the adhesive immediately and step into place. Obtain and read the Specifications Data Sheets for Tremprime WB and FAS-n-FREE Adhesive for further information.

Bitumen Application: Hot applied asphalt can be used to adhere Dens-Deck to concrete decks, mechanically attach base sheets, and insulation layer(s) previously secured. Concrete decks must be primed with Tremprime WB or Tremprime QD Low Odor and allowed to thoroughly dry. Adhere Dens-Deck to substrate in a full coverage of hot applied asphalt at a coverage rate of 30 lbs. per 100 sq. ft. (1.5 kg/m²) ± 20%. Place insulation immediately into the hot bitumen and step into place to achieve a solid bond.

Fastener Attachment: Tremco Fasteners and Steel Plates are recommended where mechanical attachment is specified. Do not mix fasteners and discs of different brands unless the combination is Factory Mutual Approved.

Fasteners must be driven perpendicular to the deck. Fasteners should be driven tight enough so that the disc will not turn. Do not overdrive the fasteners, as the roof boards may fracture and become susceptible to loss of attachment.

Precautions:

User must read container labels and Material Safety Data Sheets for health and safety precautions prior to use.

Availability and Cost:

Contact your local Tremco Representative for pricing and availability. For the name and number of your Representative call the Roofing Division 216/292.5000.

Maintenance:

Your local Tremco Roofing Representative can provide you with effective maintenance procedures which may vary depending upon specific conditions. Periodic inspections, early repairs and preventive maintenance are all part of a sound roof program.

Guarantee/Warranty:

Tremco Incorporated warrants Tremco/GP Gypsum Dens-Deck to be free of defects and to meet published physical properties. When cured and tested according to ASTM and Tremco Standards. Under this warranty, Tremco/GP Gypsum Dens-Deck that is proved to be defective when applied in

Physical Performance Characteristics

Tremco/GP Gypsum Dens-Deck

| Property | Typical Value | | Test Method |
|-------------------------------|---------------------------|--------------------------|------------------------|
| | 1/4" (6.4mm) | 1/2" (12.7mm) | |
| Flexural Strength Parallel | 40 lbf (178N) | 80 lbf (356N) | ASTM C 473 Method B |
| | Perpendicular | 45 lbf (200N) | |
| Permeance | 47.7 perms | 23 perms | ASTM E 96 |
| R Value | 0.28 | 0.56 | ASTM C 518 |
| Flute Spanability | 2 5/8" (67mm) | 5" (127mm) | ASTM E 661 |
| Compression | 500psi (3445 kPA) | | ASTM C 473 |
| Weight | 110 lbs./SQ | 195 lbs./SQ | ASTM C 473 |
| | (5.37 kg/m ²) | (9.5 kg/m ²) | |

accordance with our written instructions and in applications recommended by Tremco as suitable for this product will be replaced with like product. THIS IS BUYERS SOLE AND EXCLUSIVE REMEDY.

All claims concerning product defects must be made in writing within twelve (12) months of shipment. The absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product.

This warranty is in lieu of any and all other warranties expressed or implied, including but not limited to, any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Technical Services:

Your local Tremco Representative, working with the Tremco Service Staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in waterproofing technology, compliment and extend the services of the Tremco Technical Service staff.

Statement of Policy and Responsibility: Tremco takes responsibility for the furnishing of quality roofing materials, and providing specifications and recommendations for their proper installation.

As neither Tremco itself nor its representatives architecture or engineering, Tremco offers no opinion on and expressly disclaims any responsibility for soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure or its ability to support a planned installation properly, the owner should obtain the opinion of competent structural engineers before proceeding. Tremco accepts no liability for any structural failure or for resulting damages and no Tremco Representative is authorized to vary this disclaimer.



3735 Green Road
Beachwood, OH 44122
216-292-5000

220 Wicksteed Ave
Toronto, ONT M4H 1G7
416-421-3300