

HYDROGUARD®



Tech Data



- Depending on site and wind conditions, additional securement may be required.
- Panels should be shielded from direct sunlight until installed.

Composition and Materials

Hydroguard is manufactured in 2 foot by 4 foot panels composed of Dow STYROFOAM® extruded polystyrene foam insulation topped with a latex modified concrete mortar surface. Tongue and groove edges along the long sides allow each board to be interlocked during installation, creating a continuous layer of thermal protection.

Types

Hydroguard is topped with a nominal 3/8 inch thick surface and weighs on average 4 1/2 pounds per square foot. For applications where additional protection is required, Hydroguard is also available with a thicker concrete topping. Heavy Hydroguard has a 15/16 inch thick surface and weighs approximately eleven pounds per square foot.

Hydroguard comes in six attractive colors, including natural gray (standard), white, red, green, light brown and tan. The RE product has a bright white reflective surfacing.

Container / Coverage

Hydroguard is shrink wrapped and shipped on pallets. Standard 2" comes 56 panels to a pallet with coverage of 448 square feet. Standard 3" contains 48 panels on a pallet and covers 384 square feet. Both Heavy 2" and 3" have 24 pieces on a pallet and cover 192 square feet.

Accessories

- Precast Pavers - for perimeter securement and, depending on building and site conditions, additional ballast.
- Adhesive - for securing pavers.
- Factory and Field/Shop Fabricated Metal Securement - for perimeters, internal penetrations, and where tongue and groove integrity has been interrupted.
- Fasteners - for attaching metal securement.

1. Product Name

Hydroguard®

2. Product Description

Basic Use

Hydroguard provides both insulation and lightweight ballasting for Protected Membrane Roof systems. Composed of STYROFOAM® panels topped with latex modified concrete, Hydroguard acts as a durable barrier, protecting the roofing membrane from temperature extremes and mechanical abuses. Lightweight and easy to install, Hydroguard is ideal for flat roof applications where the use of stone ballast is not practical.

Advantages

- Provides protection to roof membrane from environmental extremes and construction and maintenance traffic.
- Eliminates condensation problems by insulating the roof assembly and keeping the dew point above the roof membrane.
- Smooth, attractive surface is resistant to thermal shock, sun, hail and vandalism. RE product surface provides solar reflectance with U.S.E.P.A. Energy Star® certification.
- CFC free and reusable.

Limitations

- Hydroguard is designed to accept light foot traffic. In applications where excessive foot or construction traffic is anticipated, walkway pads or concrete pavers must be used.

PHYSICAL PROPERTIES

| Attribute | Value | Test Method |
|---------------------------------|--|-------------------------------------|
| Extruded Polystyrene | Type VI | ASTM C 578 |
| Latex Modified Concrete Face | 3/8" thick - Standard 15/16" thick - Heavy | |
| Finished Overall Dimensions | 24" wide by 48" long | |
| Standard | 2.375" thick (2" foam) 3.375" thick (3" foam) | |
| Heavy | 2.938" thick (2" foam) 3.938" thick (3" foam) | |
| Weight | 4.5 lbs./sq. ft. - Standard 11 lbs./sq. ft. - Heavy | |
| R Value @ 75° F mean temp | 5 per inch of foam | ASTM C 518 |
| Water Absorption | < 0.1% by volume (max.) | ASTM C 272 |
| Water Vapor Permeance | 0.8 perm (max.) | ASTM E 96 |
| Freeze / Thaw | 750 cycles | ASTM C 666 "B" |
| Compressive Strength (foam) | 40 lbs./sq. inch | ASTM D 1621 |
| Steel Ball Impact Test | Slight Indentation | FM 4470 |
| Point Loading (1" x 1") | 450 lbs./sq. in. - Standard 1300 lbs./sq. in. - Heavy | |
| Solar Reflectance of RE product | 0.84 initial 0.65 3-year aged | D&S Co. SSR (ver.5) w/ASTM E 903 |
| Emittance of RE product | 0.9 | D&S Co. Model AE w/ASTM C1371 |

3. Technical Data

Typical physical properties of Hydroguard® can be found in the table overleaf.

4. Installation

Please refer to the Hydroguard Installation Guide for more detailed information on installation methods and appropriate securement systems.

Preparation

Install Hydrotech's Monolithic Membrane 6125® Rubberized Asphalt Roofing Membrane and Hydroflex Separation and Protection Course per project specifications. Place Hydroguard panels atop the protection/separation course in a loose laid fashion as outlined below.

Board Placement

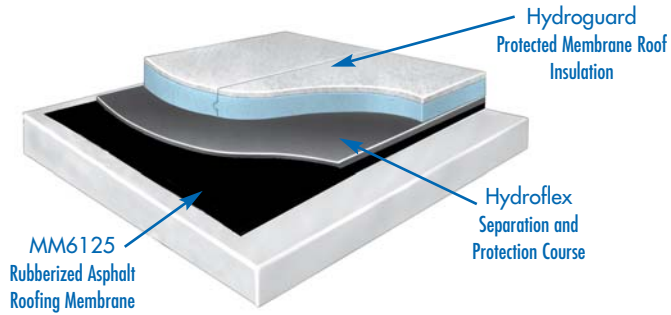
Always start at the corner closest to the source of the prevailing wind with the 4 foot long side of the board in the direction of the roof slope. Boards must be installed with joints staggered. All boards must be tightly butted to adjacent boards to maintain tight tongue and groove integrity.

Special Installation Considerations

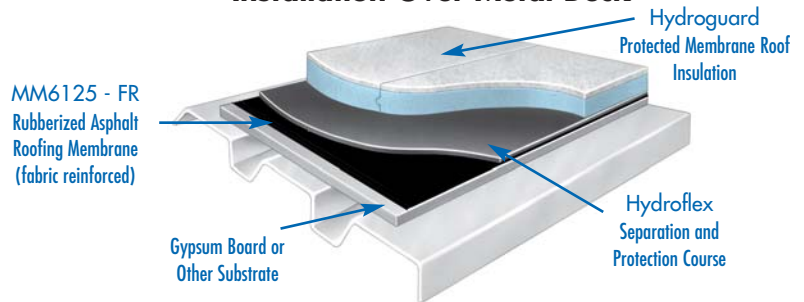
The concrete mortar surface on the boards must not be in contact with terminations such as parapets, curbs, etc. Use of 1/2 inch thick polyethylene foam is suggested.

- Insulation boards must not bridge over uneven portions of the deck. In such cases, the boards must be cut and additional securement added.
- Wherever tongue and groove integrity is lost or cuts made through the boards, metal strap securement shall be added to tie the system together.
- All foam exposed directly to the sun shall be coated with exterior grade latex paint or otherwise protected.

Installation Over Concrete Deck



Installation Over Metal Deck



Perimeter Securement

The installed system must be secured at all perimeters. The securement system must restrain any movement of the roof insulation at termination points.

There are two acceptable methods for securing Hydroguard at the perimeters: 1) Concrete pavers or 2) Fabricated metal counter flashing/gravel stop securement piece or an extruded aluminum factory fabricated metal securement piece.

Additional Securement

Depending on wind conditions, building height and parapet height, additional securement may be required. To meet individual job requirements, Hydrotech employs three different securement systems utilizing pavers. Please refer to Hydroguard installation guide.

5. Availability and Cost

Hydroguard is readily available through Hydrotech representatives worldwide.

6. Guarantees

When Hydroguard is used in conjunction with MM6125® Rubberized Asphalt Roofing Membrane and Hydroflex Separation and Protection Course, Hydrotech offers a single source warranty for the entire assembly. Contact a Hydrotech representative for specific warranty information.

7. Maintenance

Properly installed, Hydroguard requires no maintenance. As a condition of the warranty, inspection of the roof system is required once every six months to determine if repairs are necessary to insure integrity of the system and perimeter securement.

8. Technical Services

Technical support is provided by a trained network of sales representatives and Hydrotech's technical services department.



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