



A SIKA COMPANY

# Monolithic Membrane 6125<sup>®</sup>



**THE ORIGINAL RUBBERIZED ASPHALT MEMBRANE**



# 60 *years of proven performance in the field.*

*Hydrotech's Monolithic Membrane 6125<sup>®</sup>, the original rubberized asphalt membrane, has been entrusted with keeping high profile structures across the country and around the globe watertight for 60 years. With billions of square feet of MM6125<sup>®</sup> installed, Hydrotech is recognized as the leader in the waterproofing industry.*

*Not satisfied to rest on our past successes, we have developed a full range of thermal and moisture protection products, drainage systems, The Ultimate Assembly for plazas, decks and roof terraces, the Garden Roof<sup>®</sup> Assembly for vegetated roof applications, and most recently our Blue Roof Assembly.*

*We will continue to expand our product line to give architects and owners superior flexibility and design options for plazas, roofs, parking decks and critical waterproofing projects.*



Jacobs Field - Cleveland, OH



Point of Americas II - Ft. Lauderdale, FL



J. Paul Getty Museum - Los Angeles, CA

## MONOLITHIC MEMBRANE 6125®: BENEFITS AND FEATURES

**Thermoplastic Material** - one component, 100% solids, no solvents means no on-site cure failures, no two-part mixing and no VOC restrictions.

**Dead Level Applications** - can withstand and perform in submersed water conditions and is fully warrantable. The perfect membrane for flat, zero slope decks, water features, pools and vegetated roofs.

**Monolithic Membrane** - seamless, conforms to deck irregularities, and self-healing of minor construction damage. Since it is applied directly to the deck, water is restricted from migrating laterally between the substrate and the membrane.

**Cold Weather Applications** - can be applied to 0°F (-18°C) and is unaffected by adverse weather conditions immediately after installation.

**Recycled Content** - Monolithic Membrane 6125®, is formulated with up to 40% post-consumer recycled content.

**High Viscosity Material** - applied at 215 mils (5.5 mm) or 180 mils (4.5 mm), 2-3 times thicker than most other membranes, for better crack bridging, ease of flashing and substrate acceptability.

**Superior Toughness/Tenacity** - means excellent adhesion to substrate and cohesive strength. Also, superb elongation and low temperature flexibility ensure the membrane does not become brittle.

**Acid Resistance** - highly resistant to fertilizers, building washes, acid rain, methane and numerous wastes - unlike other rubberized asphalt products that use various forms of inexpensive calcium carbonate fillers.

Combined, these attributes make MM6125® a membrane that performs so well that it is rated by British Board of Agrément (BBA) as **“an effective barrier to the transmission of water... for the design life of the roof structure.”**

- Agrément No. 90/2431 & 90/2432



Millennium Park - Chicago, IL

## RIGOROUS QUALITY CONTROL

Monolithic Membrane 6125 is manufactured with rigid quality control under an ISO 9001:2015 certified quality management system. Besides earning the BBA Agrément Approval from the United Kingdom, MM6125 carries approvals from North America such as CGSB-37.50-M89, CCMC, National Defense, UL & ULC Class A Ratings and numerous international certifications and approvals. Local approvals include Dade County, Florida, City of Los Angeles and New York City's MEA. MM6125 is installed only by a network of authorized and trained installers, a key reason for the enormous success of the Hydrotech program.





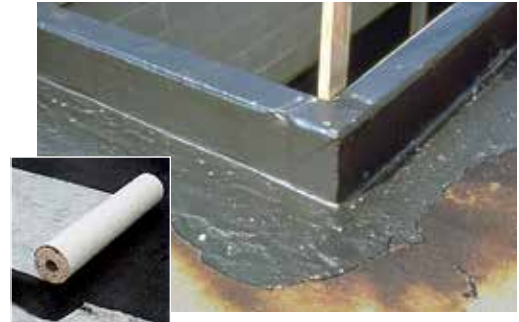
# MEMBRANE ASSEMBLY COMPONENTS

## Flashing/Reinforcement

**Flex-Flash F:** A spun-bonded polyester fabric reinforcement for detailing conditions with Monolithic Membrane 6125® such as changes in plane, construction joints and cracks. It is also used as the reinforcement in the MM6125-FR assembly (90 mils, fabric, 125 mils).

**Flex-Flash UN:** An uncured neoprene flashing used at exposed walls, curbs, penetrations, expansion joints and angle changes.

**Flex-Flash MB:** Modified Bitumen also available for exposed flashing. (not shown)



## Separation and Protection Courses

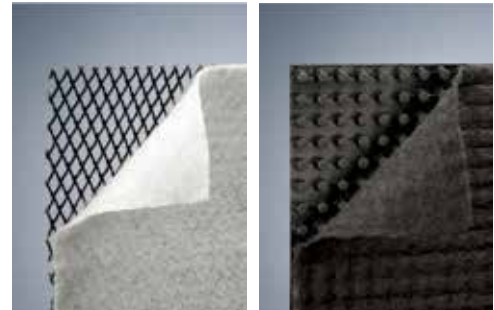
**Hydroflex® Protection Sheet:** A fiberglass reinforced, rubberized asphalt protection course. Hydroflex will not shrink or curl, reducing the likelihood of damage and stress on the membrane.

**Permaboard:** A superior quality, semi-rigid, waterproof protection board composed of a rubberized asphalt core, reinforced with a non-woven fiberglass mat and sandwiched between two protective polypropylene layers. (not shown)



## Drainage Components

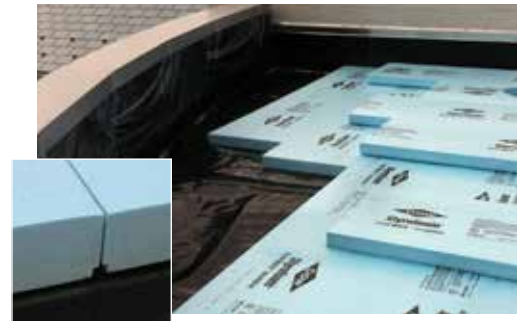
**Hydrodrain®** composite drainage products consist of either a three-dimensional "geonet" type a crush-proof polyethylene drainage core or a "dimple" type polystyrene drainage core. There are multiple variations of this product to meet particular project requirements with both horizontal and vertical applications.



## Insulation

**STYROFOAM™** Brand Insulation board by DuPont for roofs, walls, and plazas. Available through and fully warranted by Hydrotech...

- Thermal stability - R value of 5 per inch
- Excellent for exposed applications
  - moisture resistant and dimensionally stable
- High-compressive strength - 25, 40, 60 or 100 psi (to fit the use)
- Environmentally friendly - CFC-free and recyclable



## Other Products

**Hydroguard®** an integral ballast/insulation panel comprised of STYROFOAM topped with latex modified concrete.

**ThermaFlo®** a protection, insulation and drainage panel comprised of DuPont STYROFOAM with horizontal and vertical channels on one side covered by spunbonded polyester fabric.

**SECUROCK®** a gypsum-fiber roof board with 95% recycled material made by USG Corporation, marketed by American Hydrotech, Inc.

**MM7800®** a single-component, cold applied rubberized asphalt membrane for foundation walls.

**LM6090™** a cold two-part elastomeric asphalt membrane for pre-installation of flashing or as a waterproofing for small areas.

**VM60™** a 60-mil (1.5 mm) thick self-adhering sheet waterproofing membrane for vertical below-grade substrates.

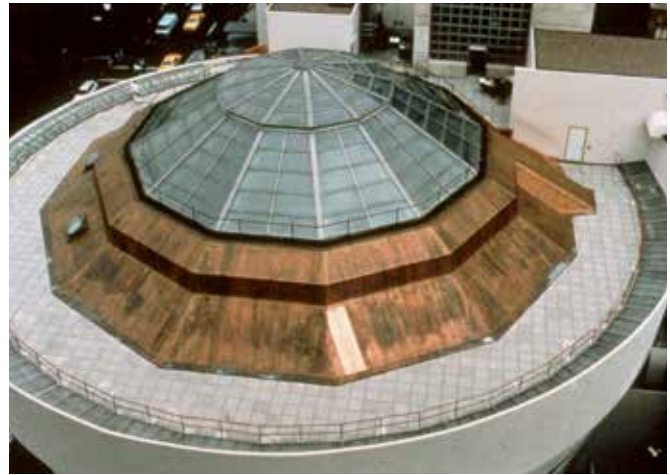
## NEW CONSTRUCTION OR RENOVATION

While an excellent choice for new construction, Monolithic Membrane 6125® is also ideal for renovation projects. If you own a building that has a roof and/or plaza deck in need of major repair, you are not alone. Deteriorating topping materials, serious leaks and loss of insulating value are some

of the problems facing many owners. These problems may be symptomatic of improper design, construction errors, inadequate material specifications or use of a product with an unknown track record...or waterproofing membranes that have exceeded their "performance life."

**Monolithic Membrane 6125 is the ideal choice for renovation applications because it can easily handle:**

- Rough concrete / spalled concrete
- Phased construction
- Difficult detailing conditions
- Little or no slope



Guggenheim Museum - New York, NY

## SUSTAINABILITY / LEED®


Construction is no longer just about building and development: it's about building smart. That entails limiting the impact of the construction process on the very environment that nurtures us, building for the long-term and catering to global needs and issues.

Hydrotech has developed products, systems and alliances that reflect and reinforce our commitment to environmental sustainability. As producers of one of the industry's best-performing membranes, Hydrotech has also introduced some of the industry's most sustainable waterproofing assemblies. For instance, our MM6125® is a hot-applied rubberized asphalt that contains up to 40% post-consumer recycled content.

Monolithic Membrane 6125, the foundation for all our waterproofing and roofing assemblies, also helps garner LEED points on projects around the country each and every day. Hydrotech assemblies feature recycled content in the membrane and reduced lifecycle costs due to product longevity (which also reduces its impact on landfills). In addition, The Ultimate Assembly® delivers energy savings through reflective pavers, while our Garden Roof® and Blue Roof Assemblies can assist you with stormwater management requirements to help meet a project's BMP's.

In short, Hydrotech has the solutions that fit the long-term sustainability strategies savvy building owners and operators are demanding of the products and assemblies they specify.

### Hydrotech Roofing, Waterproofing, Ultimate and Garden Roof Assemblies - Possible LEED V. 4 points

		Protect or Restore Habitat	Open Space	Rainwater Management	Heat Island Reduction	Places of Respite	Direct Exterior Access	Outdoor Water Use Reduction	Optimize Energy Performance**	Building Life Cycle Impact Reduction	Environmental Product Declarations	Sourcing of Raw Materials	Material Ingredients	Integrative Process	Innovation
		SS	SS	SS	SS	SS	SS	WE	EA	MR	MR	MR	MR	IP	IN
<b>PMR Assembly</b>		-	-	-	-	-	-	-	1-18	1-3	1-2	1-2	1-2	1	1-2
<b>Ultimate Assembly</b>		-	1	-	1-2	1*	1*	-	1-18	1-3	1-2	1-2	1-2	1	1-2
<b>Garden Roof Assembly</b>		2	1	2-3	1-2	1*	1*	1-2	1-18	1-3	1-2	1-2	1-2	1	1-2

MM6125 has an Environmental Product Declaration (EPD) conforming to ISO 14025 and ISO 21930

\* Healthcare projects only

\*\*Energy performance influenced by many factors

# TYPICAL WATERPROOFING APPLICATIONS

## Fabric Reinforced (FR) Assembly (215 mils thick – 5.5 mm)

*(typical components depicted)*

Hydroflex® Protection Sheet or Permaboard

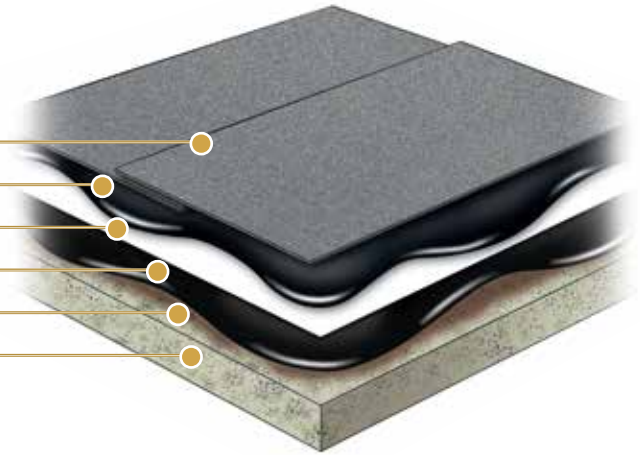
Monolithic Membrane 6125® (125 mils)

Flex-Flash F Reinforcement

Monolithic Membrane 6125® (90 mils)

Surface Conditioner (where required)

Approved Substrate



**Acceptable Substrate:** cast-in-place concrete, composite deck, precast concrete ("T", double "T" or panel), wood plank, plywood or metal deck with approved substrate board

**Not Acceptable:** lightweight insulating or cellular concrete

## Vertical Waterproofing

*(typical components depicted)*

STYROFOAM®

Monolithic Membrane 6125®-FR

Hydroflex® or Permaboard

Flex Flash F

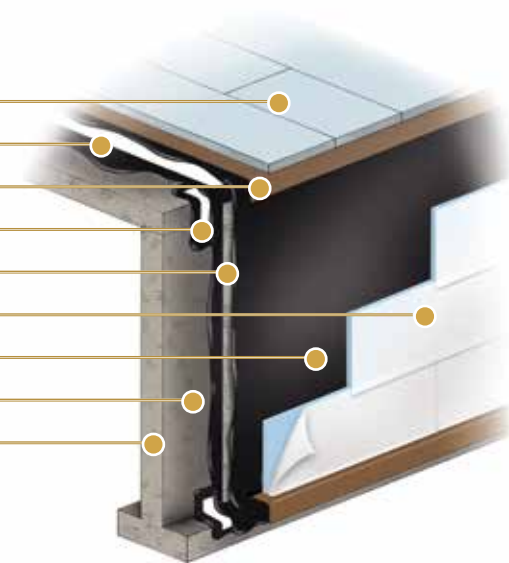
Flex Flash FV

STYROFOAM™ - board, fanfold or ThermaFlo™ (depicted)

Monolithic Membrane 6125®-FR

Surface Conditioner

Approved Substrate



## Split Slab Construction

*(typical components depicted)*

Concrete Topping Slab

Hydrodrain®

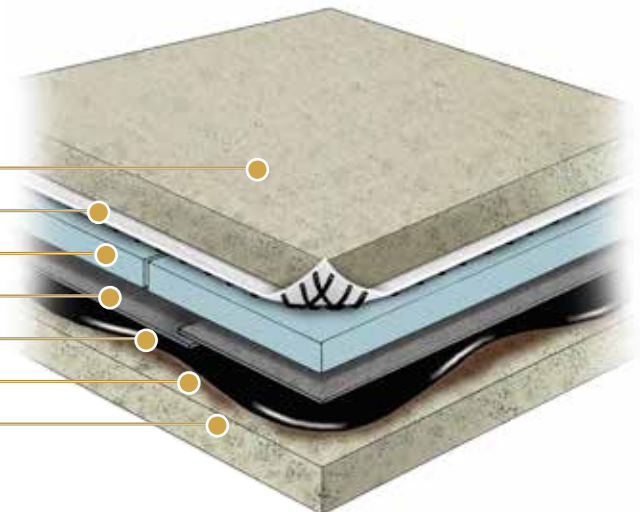
STYROFOAM™

Hydroflex®

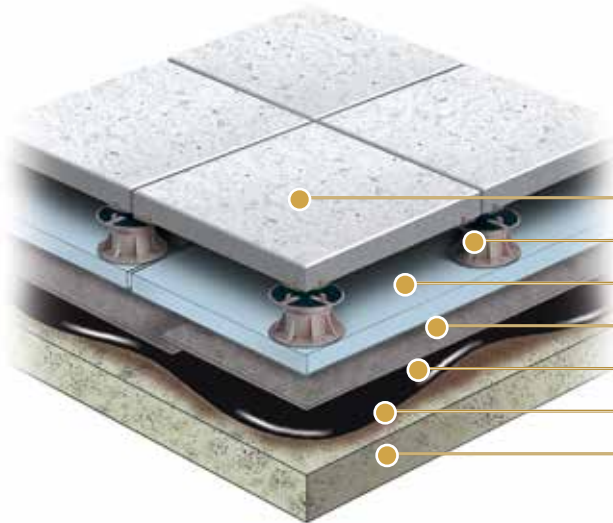
Monolithic Membrane 6125®-FR

Surface Conditioner

Approved Substrate



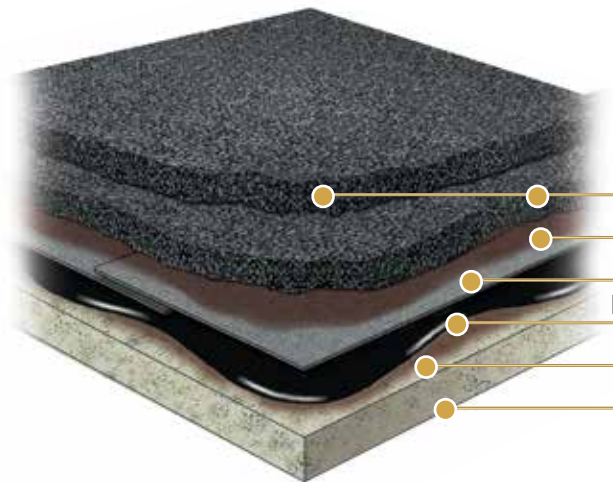




**The Ultimate Assembly®**  
*(typical components depicted)*

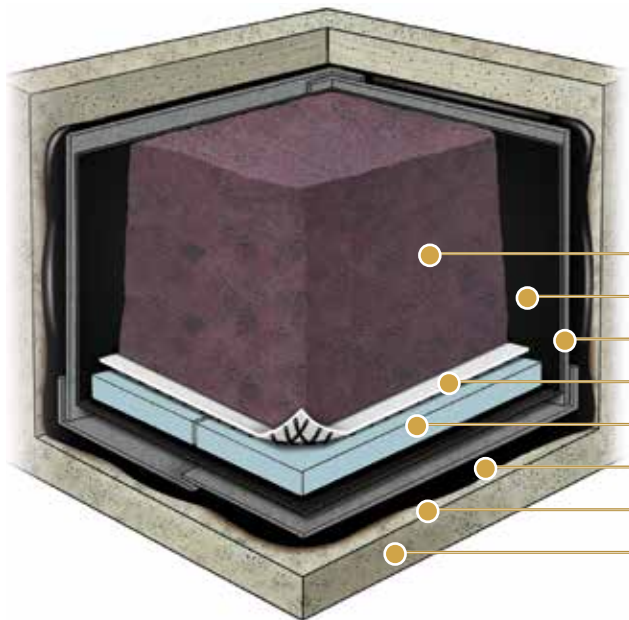
- Architectural Paver
- Pedestal
- STYROFOAM™ (minimum of 60 psi)
- Hydroflex®
- Monolithic Membrane 6125®-FR
- Surface Conditioner
- Approved Substrate

The Ultimate Assembly is not intended for vehicular traffic



**Asphalt Overlay**  
*(typical components depicted)*

- Asphalt Paving Lift #1 and #2
- Non-Solvent Tack Coat
- Hydroflex®
- Monolithic Membrane 6125® (FR 215 mils, only in asphalt applications)
- Surface Conditioner
- Approved Substrate



**Planter**  
*(typical components depicted)*

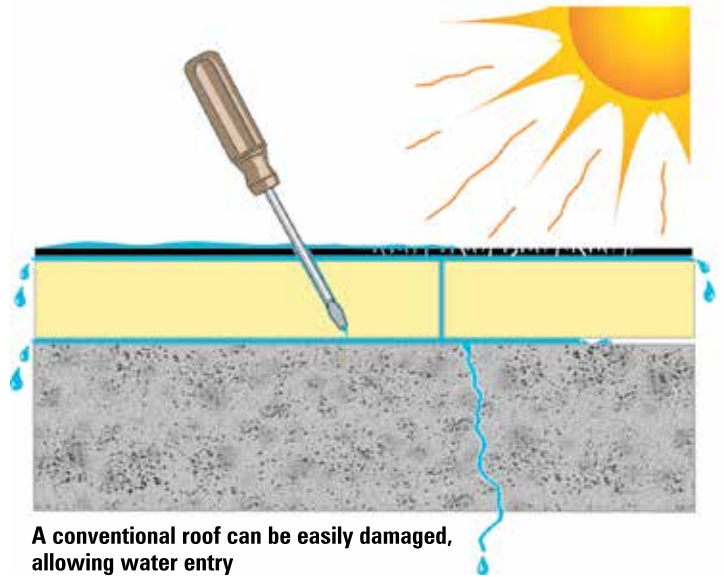
- Soil
- Root Barrier
- Hydroflex®
- Hydrodrain®
- STYROFOAM™
- Monolithic Membrane 6125®-FR
- Surface Conditioner
- Approved Substrate

## PROTECTED MEMBRANE ROOFING

### CONVENTIONAL ROOFING DESIGN:

With a conventional roof assembly the roof membrane is typically placed on top of an insulation layer and structural deck. In this configuration the roof membrane is doing double duty...protecting the contents of the building as well as the insulation below from moisture. When most insulation gets wet it loses its ability to perform as a thermal barrier. And, because the roof membrane is fully exposed to the environment in this assembly, it is subjected to extreme conditions and stresses.

A conventional roof arrangement can leave the roof membrane vulnerable to sudden temperature changes, high summer roof temperatures, low winter temperatures, ice, hail, ultraviolet rays, physical abuse from heavy foot traffic and routine maintenance. Exposure to all of these elements can weaken the integrity of the roof membrane and shorten its life expectancy.



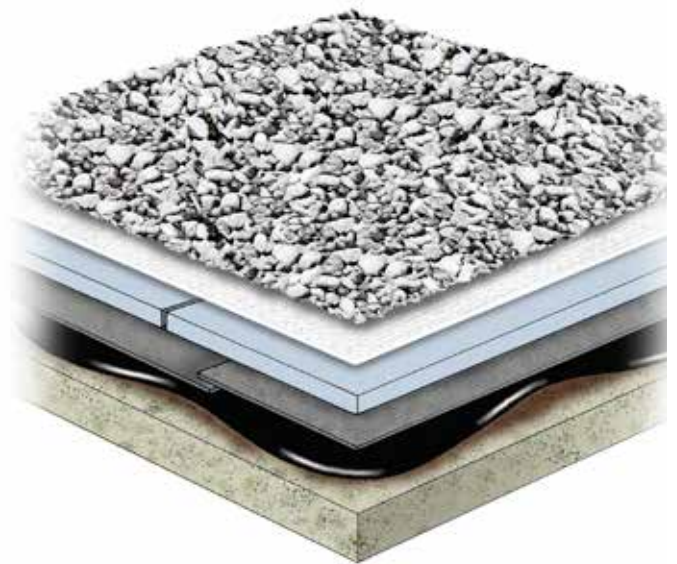
### THERE IS A BETTER WAY - PROTECT THE MEMBRANE!

A better way is possible because of DuPont's STYROFOAM™ Brand Insulation, a closed cell extruded polystyrene that can be placed in a wet environment. Placed on top of Hydrotech's Monolithic Membrane 6125®, it offers protection from the harsh conditions up on a rooftop.

### UNCONVENTIONAL COMMON SENSE IN ROOFING

This arrangement of roofing materials (roof deck / roof membrane / moisture-resistant insulation) has been referred to for decades as an Insulated Roof Membrane Assembly (IRMA), although it is now most often referred to as a Protected Membrane Roof (PMR). With such roofs, the membrane's temperature range and rate of temperature change are drastically reduced. Neither Mother Nature nor physical abuse can easily affect it.

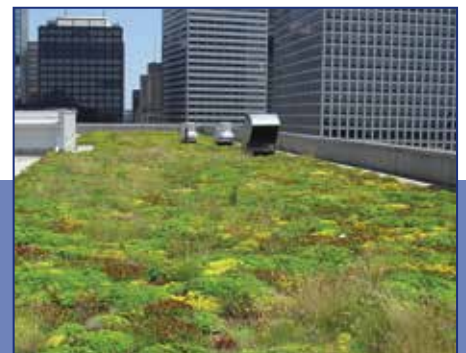
**BY SIMPLY REVERSING THE INSULATION AND MEMBRANE PLACEMENT – INSULATION ON TOP OF THE MEMBRANE RATHER THAN BENEATH – THE CAUSE OF MANY ROOFING PROBLEMS CAN BE EASILY SOLVED.**



South of Market - Reston, VA



7 World Trade Center - New York, NY



550 W. Adams - Chicago, IL



# PROTECTED MEMBRANE ROOFING (PMR) ASSEMBLY BENEFITS:

**Proven Performance** – The PMR Assembly has been a proven, time tested roof assembly for 60 years, with thousands of successful installations around the world.

**Total Roof Life Cost Savings** – While the initial cost might be slightly greater, the life cycle cost of a PMR Assembly can be considerably less than that of a conventional roof, since it can last significantly longer...2-3 times longer!

**Lower Maintenance Costs** – Roof maintenance is minimal throughout the service life of a PMR Assembly.

**Design Flexibility** – A wide choice of topping materials and finishes installed over the membrane and insulation is possible to meet the desired roofs function.

**No Vapor Retarder Needed** – With the membrane located below the insulation (on its warm side) the dew point condition occurs above it, therefore no additional vapor retarder is required in a PMR Assembly.

**Future Alterations** – Since the insulation and other topping materials above the membrane are typically loose laid, the roof surface can be easily altered to suit a new roof function or aesthetic.

**Reuse / Recycle Option** – A truly sustainable roof provides the best performance for the longest time possible. When it's finally time to replace the roof, the STYROFOAM™ insulation can be either reused or recycled.

**Other Work Can Proceed Faster** – Since the MM6125 membrane is installed first (followed by the insulation and ballast), the interior build out can begin immediately.

**Single Source Full Assembly Warranties** – Warranties available typically cover the integrity of the membrane, thermal performance and wind resistance of the insulation, as well as removal and reinstallation of the topping materials provided by Hydrotech for up to 30 years.

**For further information, see Hydrotech's Protected Membrane Roof Planning Guide.**



AT&T Corporate Center - Chicago, IL

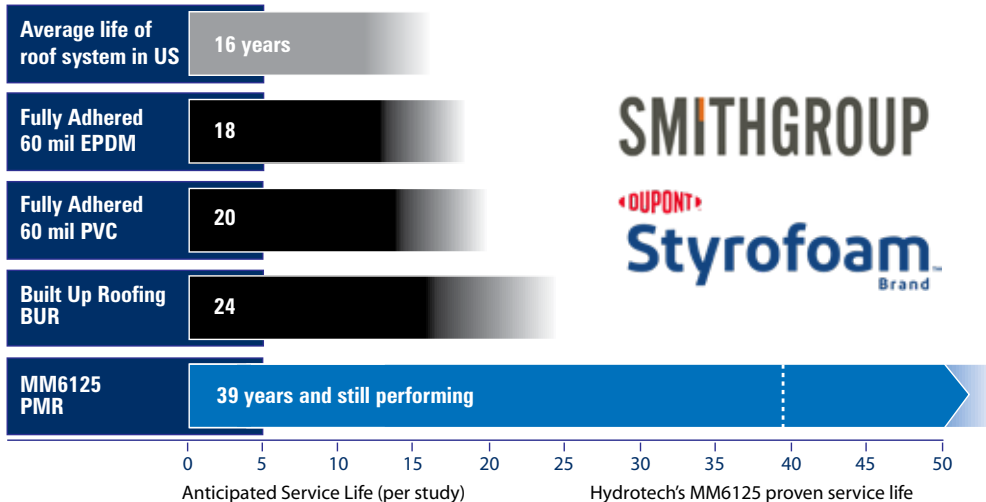
## LIFE CYCLE BENEFIT

Monolithic Membrane 6125 utilized in a Protected Membrane Roof Assembly maximizes the lifecycle benefit to an owner, well beyond other options. Compare for yourself and see the clear difference.

**Costs that must be considered are:**

Initial Cost, Maintenance/Repair and Replacement Cost.

*Ask to see the SmithGroup life cycle cost study commissioned by manufacturer of STYROFOAM.*



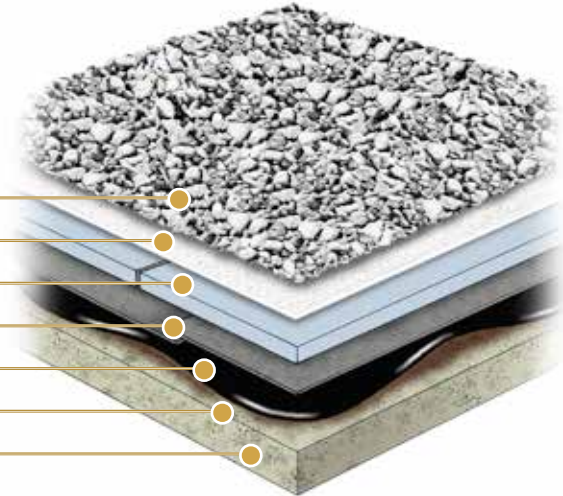
Hydrotech's MM6125 proven service life exceeds this study's anticipated service life

# TYPICAL APPLICATIONS

## Protected Membrane Roof (PMR)

*(typical components depicted)*

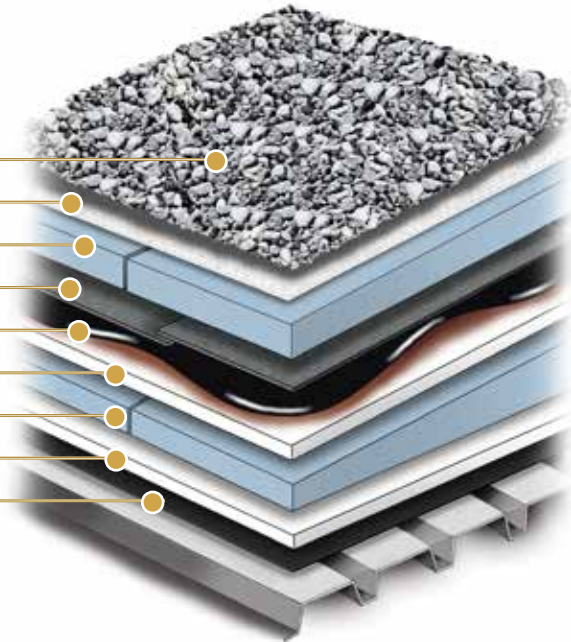
- Stone Ballast
- Stone Filter Fabric
- STYROFOAM™
- Hydroflex® Protection Sheet
- Monolithic Membrane 6125®-FR
- Surface Conditioner
- Approved Substrate



## PMR Metal Deck

*(typical components depicted)*

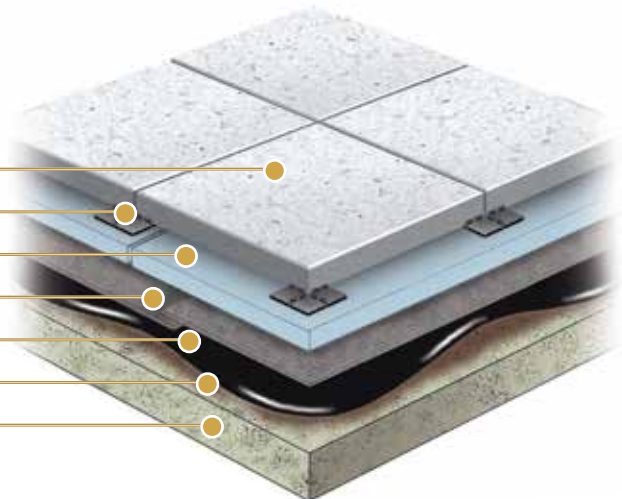
- Stone Ballast
- Stone Filter Fabric
- STYROFOAM™
- Hydroflex®
- Monolithic Membrane 6125®-FR
- Approved Substrate Board
- Tapered Insulation
- Approved Substrate Board
- Vapor Barrier (where needed)



## The Ultimate Assembly®

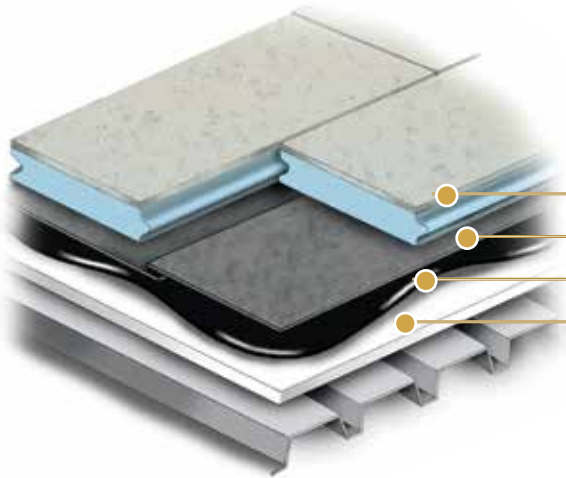
*(typical components depicted)*

- Architectural Paver
- Spacer Tab
- STYROFOAM™
- Hydroflex®
- Monolithic Membrane 6125®-FR
- Surface Conditioner
- Approved Substrate



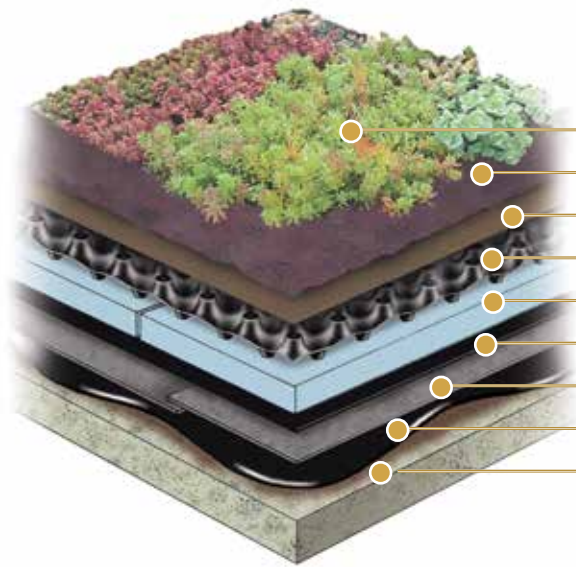
The Ultimate Assembly is not intended for vehicular traffic





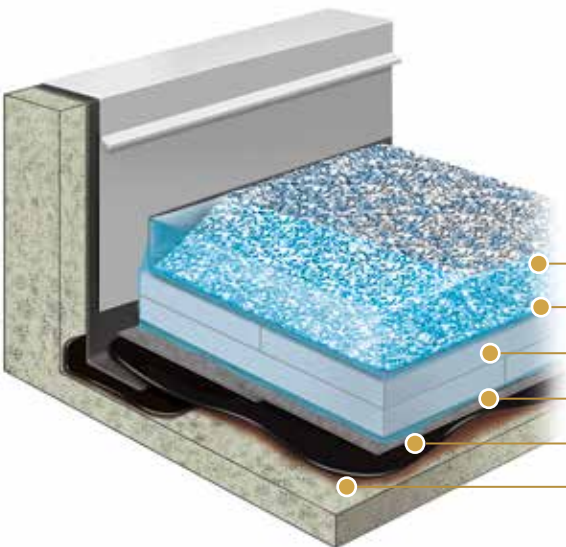
**Hydroguard®**  
*(typical components depicted)*

- Hydroguard®
- Hydroflex®
- Monolithic Membrane 6125®-FR
- Approved Substrate



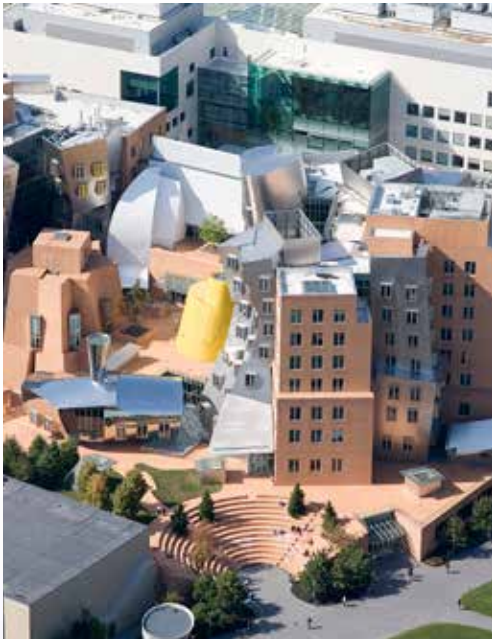
**Garden Roof® Assembly**  
*(typical extensive assembly depicted)*

- Vegetation
- LiteTop® Growing Media
- Systemfilter
- Gardendrain GR15® or GR30®
- STYROFOAM™
- Root Stop
- Hydroflex 30®
- Monolithic Membrane 6125®-FR
- Surface Conditioner Over Approved Substrate



**Blue Roof Assembly**  
*(typical stone ballasted blue roof depicted)*

- Stone Ballast
- Stone Filter Fabric
- STYROFOAM™
- Hydroflex® 30
- Monolithic Membrane 6125®-FR
- Surface Conditioner Over Approved Substrate



Stata Center, Massachusetts Institute of Technology - Cambridge, MA



Walt Disney Concert Hall - Los Angeles, CA

In 1980, American Hydrotech, Inc. purchased the Construction Products Division of Uniroyal Ltd. in Canada, giving the company exclusive worldwide ownership for the manufacture and distribution of Monolithic Membrane 6125®.

One early strength of American Hydrotech, Inc., that continues today, is its established relationships with the architectural community. The highly respected architectural firm Skidmore, Owings and Merrill first used MM6125® in the late 1960's for the Finance and Management Center at the Illinois Institute of Technology in Chicago.

We have best-in-class brands that provide exceptional performance and owner value: Monolithic Membrane 6125®, our premium (flagship) waterproofing product has been successfully installed on the world's most prestigious structures in over 86 countries for 60 years.

In 2021, Sika Corporation acquired American Hydrotech for its position as the market leader in the development and production of premium waterproofing and roofing products and assemblies. Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing, and protecting in the building sector and motor vehicle industry. Sika has subsidiaries in 100 countries around the world and manufactures in over 300 factories and over 25,000 employees.



A SIKA COMPANY

**American Hydrotech Inc.**

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[www.hydrotechusa.com](http://www.hydrotechusa.com)

*Cover Photo – The First Church of Christ, Scientist, Boston – MA (Installed in 1970)*

Scope of work included the reflecting pond waterproofing, plaza waterproofing and several Protected Membrane Roof (PMR) assemblies.

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2023-BR-2-6125-JS

STYROFOAM is a registered trademark of DuPont

The management system governing the manufacture of MM6125 is ISO 9001:2015 certified