



QUIK-SHIELD POLYURETHANE FOAM

**EXCEPTIONAL PRODUCTS
FOR EXCEPTIONAL DESIGN**

Architects Turn to SWD Urethane for:

QUIK-SHIELD® Design Systems

Both commercial and residential building designs look for insulation systems that result in energy-efficiency and air tight solutions. Quik-Shield spray foam products outperform traditional insulation methods while meeting code compliant designs through the solution's durability and quality. SWD Urethane has solutions for roof systems and continuous insulation application projects.

Industry-Leading Technical Specialists

SWD Urethane has experienced specialists that can assist with application building codes, engineering, and specifications. Our team has tested and evaluated all Quik-Shield products by third party accredited organizations and have helped architect design teams choose the best products that meet code.

MasterFormat 3 Part Specifications

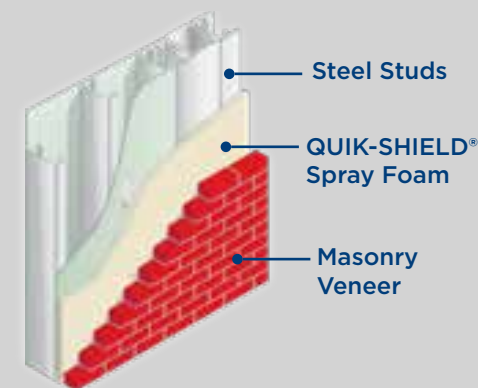
Our team of building codes and specification specialists have MasterFormat 3 Part Guide Specifications for commercial use on all Quik-Shield spray foam products. These guides are available to specifiers and can be downloaded and edited as required to meet project specific needs.

Quality Contractors

SWD Urethane has certified spray foam contractors across the United States and Canada that install Quik-Shield products to meet commercial and residential code designs. Our contractors have been trained by SWD technical support specialist ensuring our products are installed with the highest quality, ultimately delivering all expected solutions.

QUIK-SHIELD® spray foam creates a completely seamless air barrier that is energy-efficient, sustainable, and environmentally friendly. It is a spray-applied foam that can be used as an air sealing barrier and continuous insulation in commercial, industrial, and residential buildings.

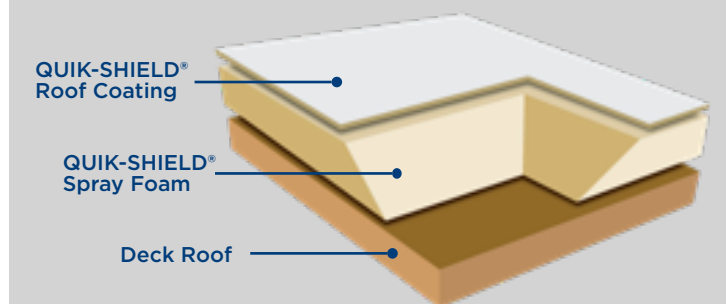
QUIK-SHIELD® Wall System



Vapor Retarders
Fire Rated Assemblies
Self Adhering Properties
Acoustical Attenuation

Spray Foam insulation allows form and function to work together. The expansion of the spray-applied foam means that unique shapes and designs can still be insulated effectively.

QUIK-SHIELD® Roofing System



Monolithic Seal
No Seams or Fasteners
Zero Leaks
Severe Storm Resistant

Spray foam roofing has a service life of more than 40 years and can be recoated easily at a minimal cost.



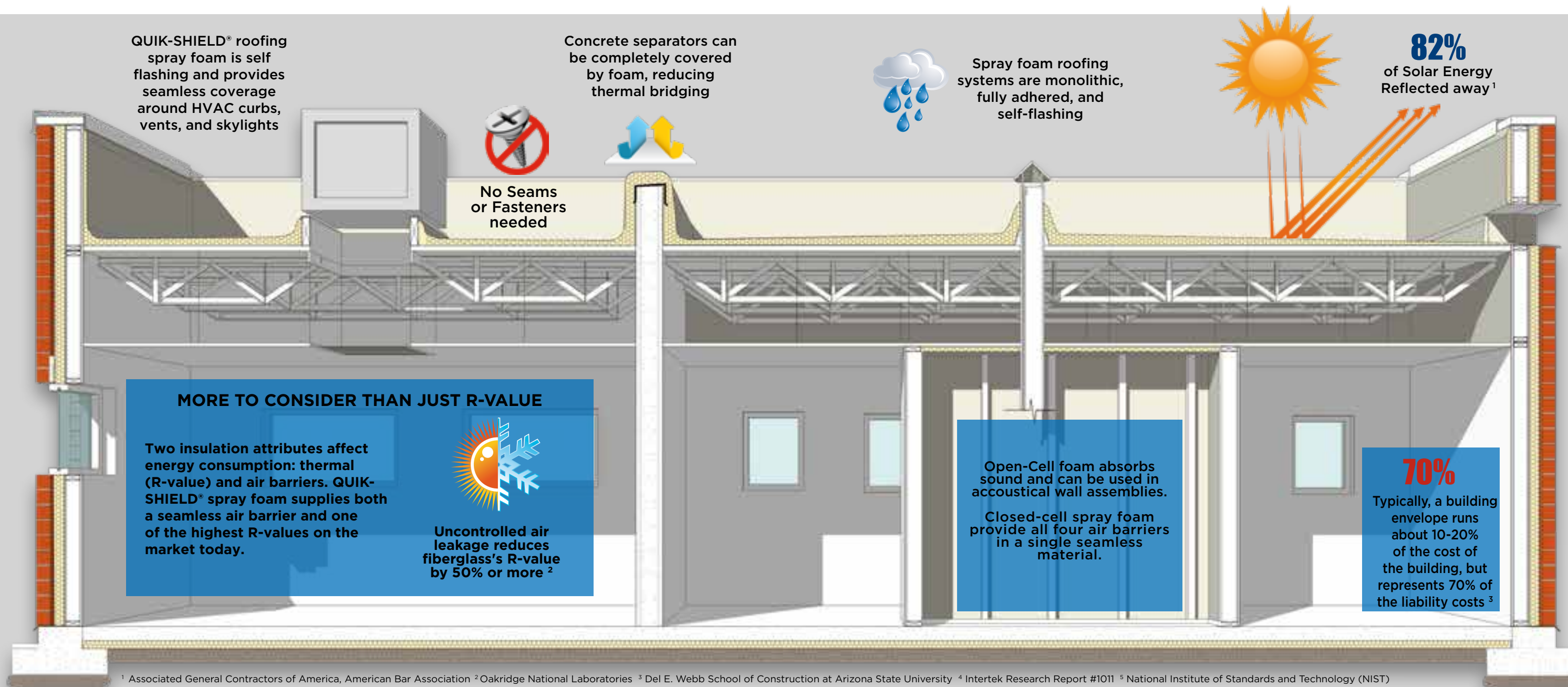
SWD Urethane is a member of the U.S. Green Building Council. QUIK-SHIELD® spray foam is a LEED qualified material and counts towards LEED points.



Most QUIK-SHIELD® insulation products carry GREENGUARD® GOLD certification, the strictest standard for indoor air quality.

DESIGN A BETTER BUILDING ENVELOPE

QUIK-SHIELD® products are designed to exceed all building envelope requirements. An efficient building envelope provides high performance protection against water, air-vapor, and heat.



Vapor Retarder

QUIK-SHIELD® closed-cell spray foams are effective vapor retarders at an installed depth of 1.2 inches or greater⁴

Fire Rated Assemblies

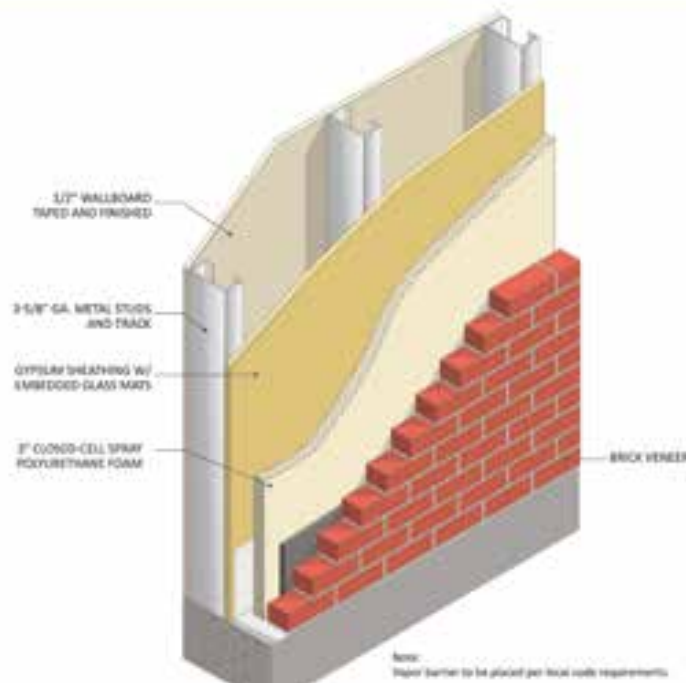
Hourly fire rated assemblies are available for QUIK-SHIELD® wall and roof products

40% Savings

QUIK-SHIELD® Spray Foam can decrease a building's heating and cooling costs by as much as 40%⁵

Seamless Air Barrier

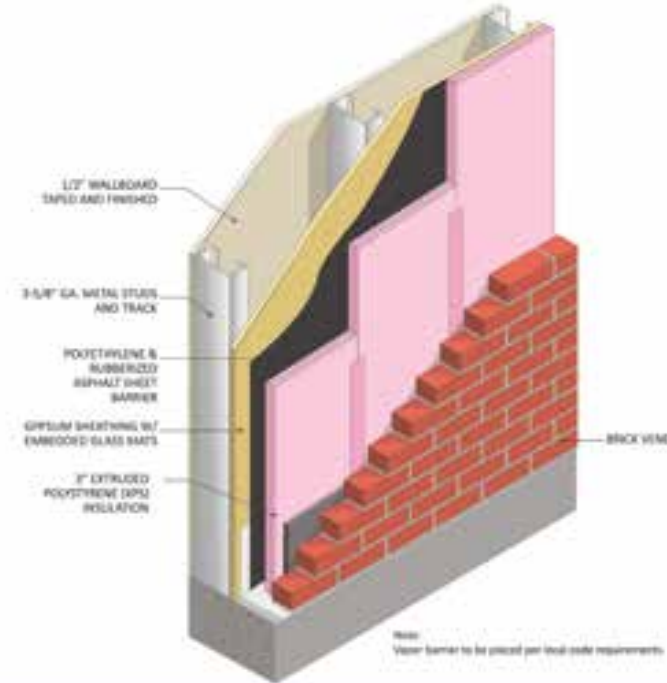
QUIK-SHIELD® spray foam creates a seamless air barrier



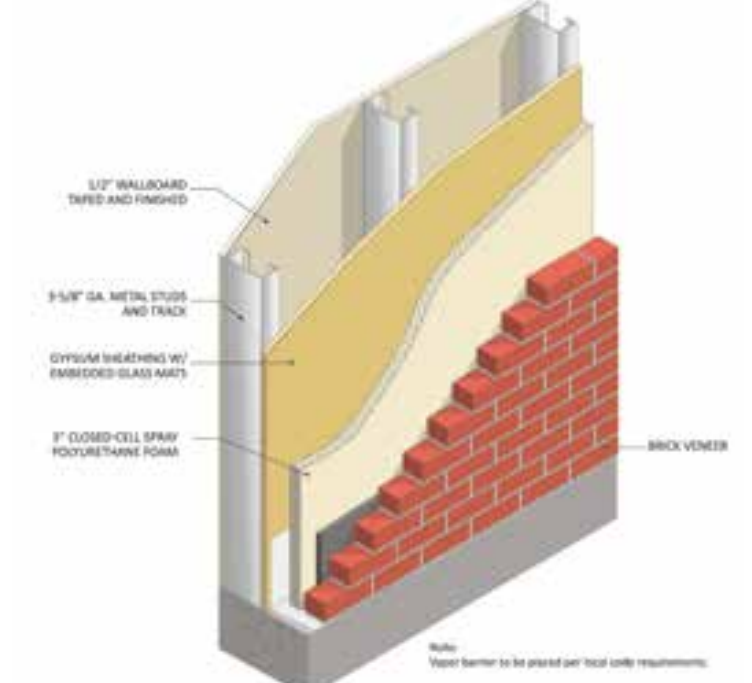
Continuous Closed-Cell Spray Foam:

- Is applied to the exterior walls
- Does not require an additional air barrier
- Increases structural racking strength
- Can be applied to most substrates
- Can be configured with most claddings
- Is designed to last the lifespan of the building
- Can be less expensive than other exterior finishing systems

XPS Rigid Board Insulation



Closed-Cell Spray Foam



CASE STUDY



API Distribution Training Center New Brighton, Minnesota

When API Distributors needed a new training facility in Minnesota, they turned to spray foam for insulation. Drawing upon their experience as a construction materials distributor, API knew spray foam would be the best choice on this project.

The 18,000 sq. ft. facility was chosen to have spray foam as continuous insulation. The advantage of this assembly was that it was a 1-part insulation system with a built-in seamless air barrier, eliminating the need to install an additional air barrier. This saved a lot of time and materials over using an XPS rigid board insulation system. A total of 3 inches of QUIK-SHIELD® closed-cell spray foam was applied to the substrate to provide an R-Value of 20. A brick veneer was then installed over the spray foam.

Since the continuous insulation assembly did not require an additional air barrier, it saved significant time and cost on this project. Furthermore, the spray foam continuous insulation system is designed to last the life of the building—a much greater span of time than an XPS rigid board insulation system is warranted for.



1/2" Gypsum Wallboard, Taped, and Finished	\$1.71
3-5/8" 25 Ga. Metal Stud & Track, 16" O.C.	\$1.47
1/2" Gypsum Sheathing with Embedded Glass Mats	\$1.90
SBS Modified Bitumen Sheet Air Barrier (18')	\$1.55
3" Extruded Polystyrene (XPS) Insulation (R-15)	\$2.60
Brick Veneer	\$16.95
TOTAL PER SQUARE FOOT	\$26.18

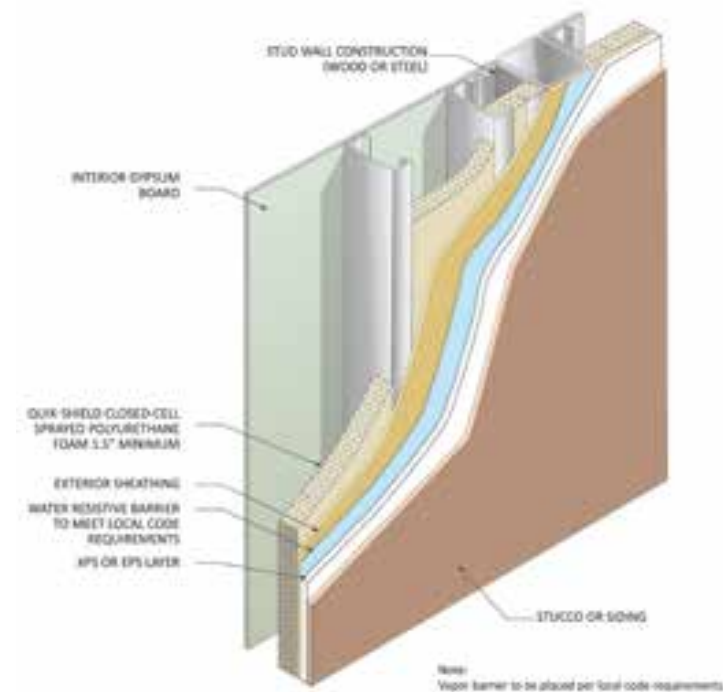
1/2" Gypsum Wallboard, Taped, and Finished	\$1.71
3-5/8" 25 Ga. Metal Stud & Track, 16" O.C.	\$1.47
1/2" Gypsum Sheathing with Embedded Glass Mats	\$1.90
3" Closed Cell Spray Polyurethane Foam (R-19)	\$2.79
Brick Veneer	\$16.95
TOTAL PER SQUARE FOOT	\$24.82

In addition to cost savings per square foot, spray foam insulation is also longer-lasting. An XPS rigid board insulation system is typically warranted for 10 - 15 years, whereas a spray foam system is designed to last the lifetime of the building. This dramatically reducing the lifecycle cost of the wall system.

Source: R.S. Means 2014

SPRAY FOAM SYSTEMS ARE DESIGNED TO LAST THE LIFETIME OF THE BUILDING

EXTERIOR WALL: COMMERCIAL

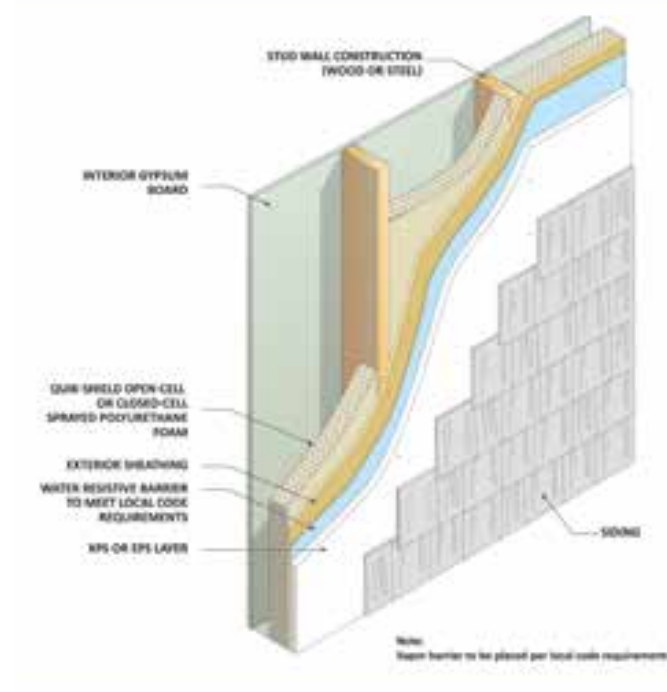


Spray Foam in Commercial Exterior Walls Provide:

- Superior air sealing around framing members resulting in an air barrier*
- Excellent thermal insulation
- A vapor retarder**
- The ability to use open-cell foam when using an additional vapor retarder (where required)

*Air barrier at 1" with closed-cell foam and 3.5" with open-cell
 **With closed-cell foam at 1.2" or more

EXTERIOR WALL: RESIDENTIAL



Spray Foam in Exterior Residential Walls Provide:

- The option of using open-cell or closed-cell foam in residential applications
- A high performance air seal*
- Excellent thermal insulation
- A vapor retarder**

*Air barrier at 1" with closed-cell foam and 3.5" with open-cell
 **With closed-cell foam at 1.2" or more

CASE STUDY



Saint Joseph Hospital Denver, Colorado

Saint Joseph Hospital in Denver embarked on a major initiative to create the most modern hospital in Colorado with more than 830,000 sq. ft. of patient care.

Providing a seamless air barrier was essential for Infection control, as patients' lives may depend on it. Due to its superior air-sealing properties, QUIK-SHIELD® closed-cell spray foam insulation was used to meet the hospital's need for a seamless air barrier. QUIK-SHIELD® closed-cell spray foam also acts as an effective vapor retarder, keeping unwanted moisture out to inhibit germs and mold from growing.

The exterior walls of the building were pre-assembled off-site as large panels and then delivered to the construction site. The interior wallboard was left off the assemblies so the the cavities could be filled with 3.5 inches of spray foam giving the interior cavity an R-23. Rockwool panels were installed as continuous insulation giving the entire wall assembly a higher R-value.

After the panels were attached to the building by crane, the seams between the panels were sealed with spray foam. Constructing the wall panels off-site meant a quicker delivery, and the building could be completed in a tighter schedule. In addition, minimal onsite spraying allowed other trades to stick to a normal schedule.



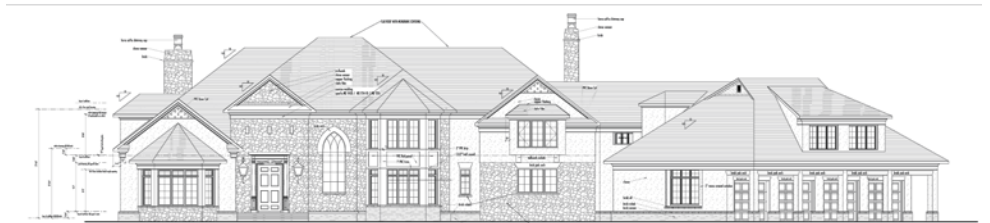
CASE STUDY



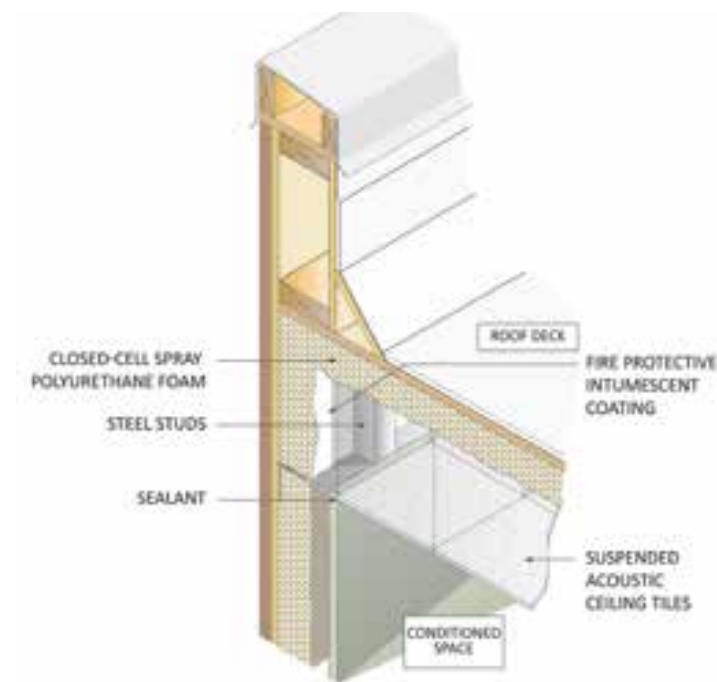
Large Custom Home Annapolis, Maryland

For this 11,800 sq. ft. home, the architect chose to upgrade to spray foam and an unvented attic in order to provide energy savings and greater comfort. In addition, the home had design features that were unusually shaped, such as corners around the windows and a vaulted ceiling. These design features made the project especially well-suited to spray foam. Spray foam had the ability to be installed into tight areas that were impractical for fiberglass batts.

The architect specified a R-60 for the roof deck, and 14 inches of QUIK-SHIELD® open-cell foam was used to achieve this. Energy modeling showed that using spray foam and an unvented attic would drop the home's heating and cooling bills by 63%, compared to traditional insulation. This equates to approximately \$5,000 in savings per year. In addition, spray foam's seamless air barrier prevented issues with cold spots or drafts in the house, making the house much more comfortable than it would have been with traditional insulation.



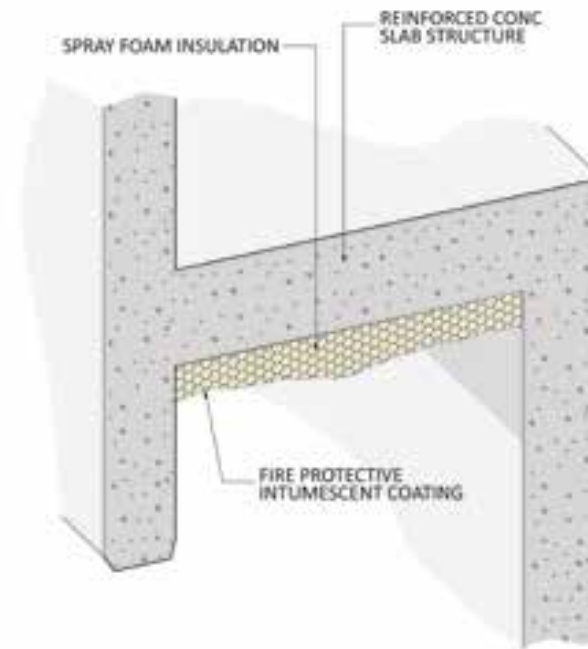
UNDER ROOF DECK



Spray Foam Under Roof Deck Provides:

- An excellent air barrier and thermal insulation
- Self-adhering properties—does not require fasteners
- Insulation that does not sag or settle
- Air-tight insulation that conforms to difficult spaces and unusual geometry
- A great solution for warehouses and other large commercial buildings
- The ability to use open-cell or closed-cell foam—determined with climate zone and building use (i.e., high humidity areas such as indoor swimming pools, saunas, etc.)

PARKING GARAGE



Spray foam in Parking Garage Provides:

- An excellent thermal insulation option with conditioned space above the garage
- Acoustical attenuation that protects from excessive noise
- Insulation that does not sag or settle
- Air-tight insulation that conforms to difficult spaces and unusual geometry
- Mechanical (impact) protection when using closed-cell foam
- Cost-effective way to insulate a parking garage. Traditional insulation, such as fiberglass, would require an enclosure to keep it in place, but spray foam does not making it more cost-effective

CASE STUDY

Yulman Stadium of Tulane University New Orleans, Louisiana

In 2005, Hurricane Katrina devastated New Orleans and Tulane University. When getting ready to start reconstruction, Tulane vowed to do things better and chose spray foam insulation as a major part of their new football stadium. QUIK-SHIELD® 112XC (Extreme Cold formulation) was used in the beginning months of the project because it was cold out, and then QUIK-SHIELD® 112 was used when the weather warmed.

Spray foam is easier to install because it is self-adhering to the surfaces of the roof deck, unlike fiberglass batts, which have to be fastened in place. Spray foam's self-adhering properties also enables it to deliver a far better air-seal and a seamless building envelope.

Spray foam was chosen not only because of its air sealing and insulation properties, but also because of its ability to increase structural strength against hurricane-force winds. Furthermore, closed-cell spray foam is the only Class 4 Rated Flood Resistant insulation material, as defined by FEMA. This type of insulation can survive floods without additional waterproofing.

When the project was finished, spray foam proved useful in beating the heat and humidity of New Orleans. Because of spray foam's air-sealing ability, Tulane University has significantly more control over the stadium's interior environment. Utility costs are minimized, while keeping the conditioned areas of the stadium comfortable.



CASE STUDY

Salt Lake City Airport Salt Lake City, Utah

The Salt Lake City Airport was desperately in need of renovations in order to keep up with demand. In addition to a new airport terminal, construction began on three office buildings and a short-term parking garage. The airport had decided to go with spray foam insulation for the offices and parking garage due to its energy efficiency and ability to keep the interior of the buildings comfortable.

A total of 5" of QUIK-SHIELD® closed cell foam was installed on the walls, and 4" was sprayed directly to the concrete substrate under the roof deck. Had this job been done with traditional insulation, such as fiberglass, it would have required an enclosure over the insulation or mechanical fasteners to keep it in place. Spray foam is self-adhering, and does not need an enclosure or mechanical fasteners, thereby making it the best choice for insulating a parking garage.

During the design phases of the airport's renovations, it was decided that the new buildings would be easy-to-use, have state-of-the-art functionality, and stay cost-competitive. The benefits of spray foam were integral to realizing these goals. The airport is now one of the nation's most cost-efficient due in part to QUIK-SHIELD® closed-cell spray foam decreasing energy costs by up to 40%.



SPRAY FOAM ROOFING SYSTEM

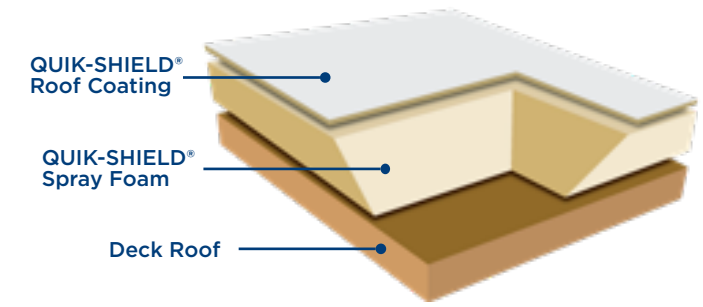
A QUIK-SHIELD® spray foam roofing system consists of durable, lightweight foam and a protective roof coating. The foam is sprayed in place as a liquid then expands to fill cracks and crevices forming a hard, durable, monolithic roof surface. The coating applied over the foam protects it from the elements, creating a system that can last 40 years or more with proper maintenance.



40+
YEARS IN SERVICE

Spray foam roofing has a service life of more than 40 years and can be recoated easily at a minimal cost

300
MILLION
Board feet of roofing spray foam is installed annually in the U.S.



Smart Investment

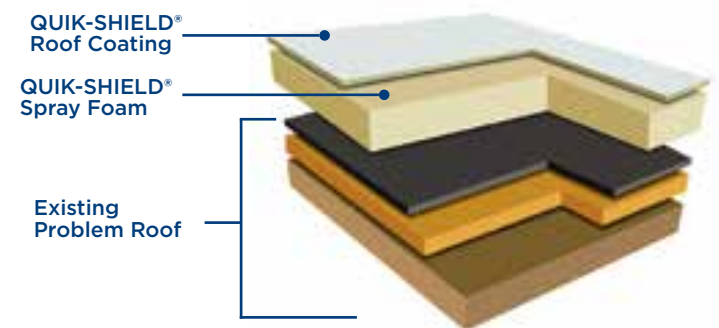
QUIK-SHIELD® spray foam roofing systems provide low maintenance costs, long service life, reduction in energy bills, and is the only roofing system that pays for itself.

Spray Foam Over an Existing Roof

Installing a QUIK-SHIELD® spray foam roofing system can solve most existing roofing issues. In most cases, a spray foam roof can be installed directly over an existing roof without removing it. Best of all, a new QUIK-SHIELD® roof will start paying for itself through energy savings and a significant reduction in maintenance costs.

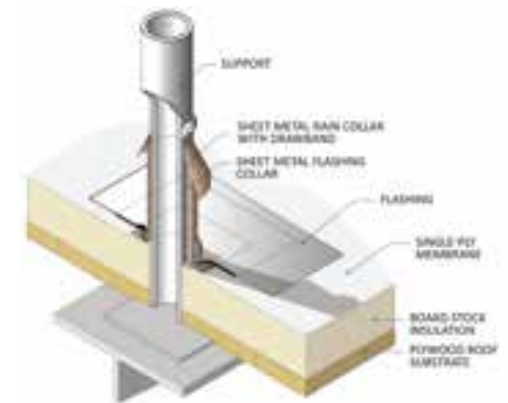
4.5
YEARS

Number of years to recover the complete cost of a spray foam roof through energy savings**



ROOF PENETRATIONS

Traditional Roofing: Penetrations with Leak Potential



Traditional roofing solutions do not form a monolithic seal on penetrations and therefore have high leak potential

QUIK-SHIELD® Spray Foam: Monolithic Seal with No Leaks



QUIK-SHIELD® spray foam is self-flashing and forms a seamless seal on roof deck penetrations

From wall-to-wall, QUIK-SHIELD® provides a seamless roof install with no mechanical fasteners, providing the building with an unsurpassed air barrier and increased thermal resistance. QUIK-SHIELD® is also self-flashing around HVAC curbs, vents, and skylights, adding additional protection against moisture and air infiltration.

ZERO SEAMS
ZERO FASTENERS
ZERO LEAKS
On QUIK-SHIELD® Roofing Systems

CASE STUDY

Celgene San Diego, California

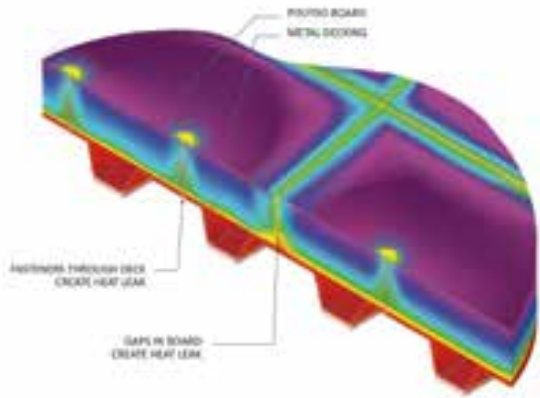
Celgene, a global biopharmaceutical company, had leased a section of a building that needed to be retrofitted in order to meet their unique equipment requirements. This involved cutting a staggering 2,500 holes in the brand new spray foam roof. Because of all the damage done, it was very fortunate that a spray foam roofing system had been in place. QUIK-SHIELD® 125 spray foam and QUIK-SHIELD® 1929F coating was used again to completely reseal the penetrations and rebuild the roof as a seamless, monolithic system. Roofing with any other method would have required an extensive patch job which would have taken longer to complete.

In addition, other roofing methods couldn't provide the necessary air barrier at an affordable cost, especially with all of the post-application penetrations. With traditional roofing systems, the flashing alone is about \$40 per penetration, which would have cost Celgene at least an additional \$100,000. This doesn't include the additional cost or time it would have taken to attempt to seal the penetrations with traditional methods. The value of having a seamless, leak-free roof cannot be overstated, as Celgene's research could not be completed without the proper facility.



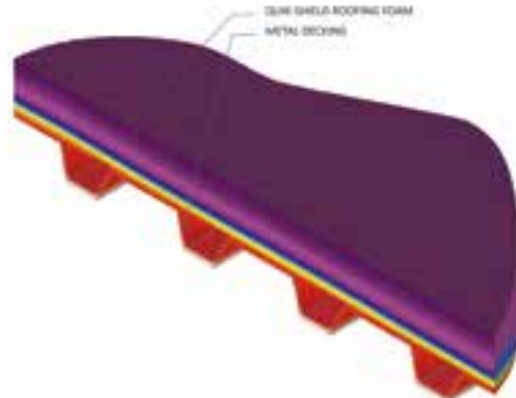
*70% of all liability claims- Associated General Contractors of America, American Bar Association **Texas A&M University study

Traditional Roofing: Thermal Shorts and Bridging



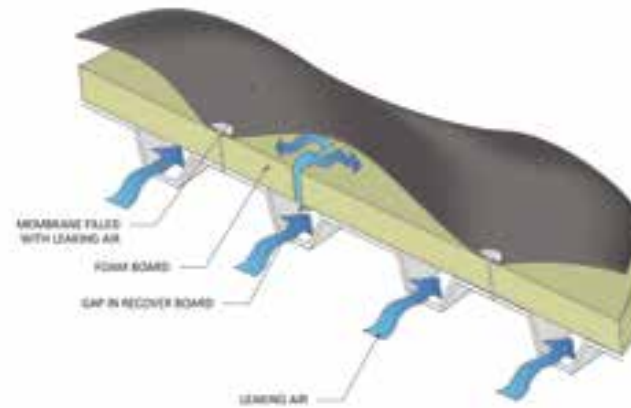
Fasteners and seams on Single-Ply roofs allow heat to transfer, wasting energy and money

QUIK-SHIELD® Spray Foam: Seamless Solution



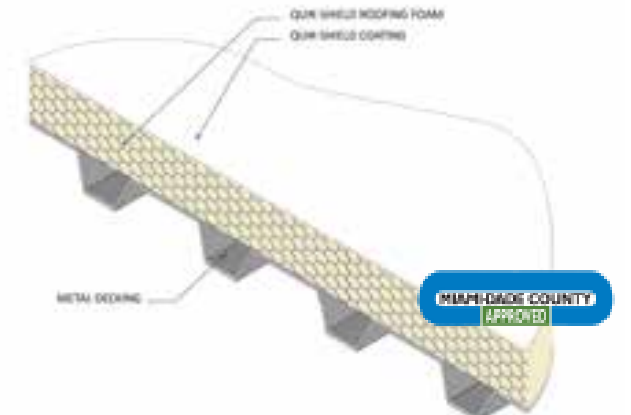
1" or more of QUIK-SHIELD® spray foam significantly reduces heat transfer through studs, fasteners, and roof deck gaps

Traditional Roofing: Problems with Wind Uplift



Fasteners and seams allow air to leak beneath the membrane. The wind pressure can cause fluttering of the membrane and, potentially, roof blow off

QUIK-SHIELD® Spray Foam: Storm Performance



QUIK-SHIELD® spray foam on a metal deck maxed out the Miami-Dade wind uplift test at over 500 mph.

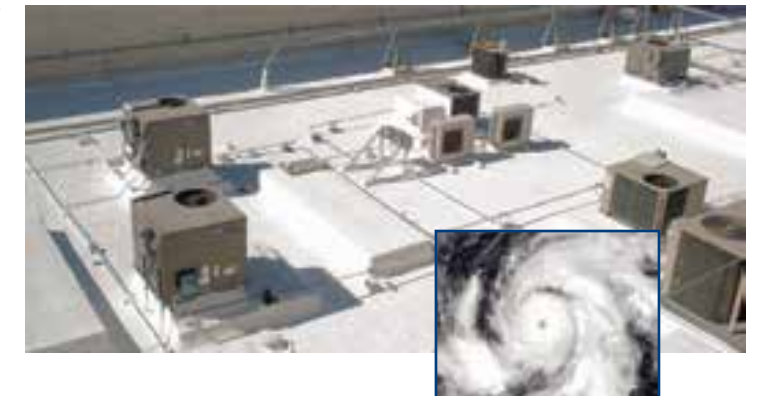
23%
R-VALUE LOSS

Fasteners from traditional insulation cause thermal bridging dramatically lowering the insulation value and energy-efficiency of the building.*

Fasteners and seams from traditional roofing systems can cause thermal bridging and heat loss, which wastes energy and money. QUIK-SHIELD® spray foam requires no fasteners and has no seams to leak from. It forms a seamless, monolithic barrier that tremendously reduces escaping heat, thereby providing significant utility cost savings.

QUIK-SHIELD® - Severe Storm Resistant

QUIK-SHIELD® spray foam roof systems fare better in extreme weather, including hail, high winds, and falling debris. A post-Hurricane Katrina study concluded that all spray foam roofs but one minor exception sustained the hurricane without blow-off of the spray foam or damage to flashings.* Spray foam roofing systems perform extremely well in hurricane conditions, helping keep roofs intact and buildings moisture free.



*National Institute of Science Technology (NIST) **Del E. Webb School of Construction at Arizona State University

CASE STUDY

TOMAR Electronics Mesa, Arizona

This project included a 22,500 sq. ft. building expansion and the retrofit of the existing 68,000 sq. ft. warehouse facility roof. QUIK-SHIELD® 125 2.5lb roofing spray foam was applied, along with QUIK-SHIELD® 1929F white acrylic and QUIK-SHIELD® 2020 cementitious top coats.

This roof was a low slope, B metal deck and was covered with 560 photovoltaic panels and 76 skylights. TOMAR had previously experienced a lot of problems with leaking, due to the inability of the previous roofing product to properly seal all of the seams and penetrations. Spray foam is seamless and self-flashing, which solved the building's issues with leaks.

The QUIK-SHIELD® air barrier and the high solar reflectance of the acrylic coating helped make TOMAR one of the few manufacturing facilities in the U.S. to achieve a near net-zero energy rating.



CASE STUDY

The Superdome New Orleans, Louisiana

- Half of the 9.7 acre EPDM single ply membrane was blown off during hurricane Katrina, and led to collapse of two 20'x5' sections of the roof
- Lack of an air barrier and leaks in the EPDM membrane contributed to the failure
- New Superdome roof has been completely replaced with a spray foam roofing system



\$185
MILLION

Cost to repair damage to The Superdome after hurricane Katrina

**CALL US TODAY
FOR ALL OF YOUR
SPECIFICATION NEEDS**

800-828-1394

THE QUIK-SHIELD® BRAND IS OWNED AND OPERATED BY:



SWD Urethane is an accredited AIA/CES provider.
Contact us today to schedule your next course