



# SPF Superheroes at Work

*By Jennifer Frakes  
Photos courtesy of Huntsman*

**B**atman, Superman, and Wonder Woman come to mind when we think of popular superheroes. But if we take a look at real-life people who are the movers and shakers of an industry, we'll find that in the world of spray polyurethane foam, there are SPF applicators, builders, and manufacturers whose work is making a difference in people's lives today and in the long run. In this story, those players are Unique Insulation, Frankel Building Group, and CertainTeed Insulation. They have teamed up to construct a community of homes that is energy-efficient—and healthy for the people who will live in them.

Parkgate Reserve, a housing development in Houston, Texas, is one of their latest projects. "All of the homes in Parkgate Reserve are insulated with SPF," says Scott Frankel, vice president at Frankel Building Group. And what does that mean? The owners of these homes will live in safer and more environmentally friendly homes because of spray foam's many attributes, including a tight building envelope and improved air quality.

Unique Insulation, Frankel Building Group, and CertainTeed Insulation teamed up to build a community of homes that is energy-efficient, with SPF being a key player.





## Insulation Superpower

Just how did an applicator, builder, and foam manufacturer come together to promote the value of SPF to potential Parkgate Reserve homeowners? It all started with the people at Frankel Building Group and their commitment to using sustainable materials and building homes that conserve energy. "Spray foam insulation is a big part of our commitment to building green homes," says Frankel.

Parkgate Reserve is Frankel Building Group's first neighborhood development. Each of the community's 58 homes is insulated with CertaSpray open-cell foam in the walls and roof deck. This product is based on technology developed by Huntsman and provides an effective, ultra-tight thermal and air barrier. According to Lionel Rossignol, product manager at CertainTeed Insulation, "When used as part of a portfolio of effective green building



According to the U.S. Department of Energy, SPF saves 30 percent or more in utility costs each month.

products, CertaSpray can help a home meet or exceed LEED for Homes (LEED-H) certification, achieve zero-net energy and carbon neutral status, thereby ensuring sustainability in the long term."

## SPF Saving Money

So just how much can spray foam save an average homeowner? Monica Karamagi, regional marketing and industry affairs manager for Huntsman Polyurethanes, states that homes insulated with spray foam will typically require 30 to 50 percent less energy to heat or cool. This translates into significant utility savings.

It is also important to note that when a home has a thermally efficient and airtight building envelope in place, there is less reliance on heating, ventilation, and air conditioning (HVAC) equipment to maintain a comfortable temperature and air quality within the home. This means that homeowners may opt for smaller and less powerful equipment, which can reduce the initial HVAC investment and lifetime operating costs.

Karamagi points out some other benefits to having an airtight building envelope. Moisture infiltration is controlled, reducing the potential for mold growth. By sealing out dust, allergens, and pollutants, indoor air quality can be improved. In addition, open-cell foam

Unique Insulation installed spray foam to the building envelope: walls, cathedral ceilings, attic, crawl space, and roof deck.



Equipment on the job: The crew used a Graco E-20 and Fusion AP spray gun to get the foam applied in all the cracks and crevices.

acts as a sound absorber. "The result is a more comfortable, quiet home, with lower heating and cooling costs for the homeowner," says Karamagi.

Spray foam insulation can benefit homeowners in all types of climates, but those in hot, humid areas, such as Houston, tend to see the most dramatic results from the application of SPF. In Frankel's experience, other types of insulation can't compete with spray foam in the heat and humidity of a Houston summer.

"Homeowners love how cool and dry their homes feel when it is hot and humid outside," says Frankel. "My job is to educate people on spray foam. Homeowners are saving a lot of money with SPF. They need to realize that the initial investment may be more than with other types of insulation, but looking out over the next several years, SPF will have paid for itself with savings in utility bills."

### Pow! Wham! Spray!

All of the superpowers of SPF are null and void if it is not applied correctly. This is where Leo Torres of Unique Insulation enters the scene. "We've never done one [of the Parkgate Reserve homes] without him," says Frankel. "We are proud of the work that Leo and his team have done on the houses. They get it right time after time."

Of the 58 homes in the Parkgate Reserve community, Torres and his crew have applied SPF to each building's entire envelope: all walls, cathedral ceilings, attics, crawl spaces, and the underside of roof decks. The homes range in size from 3,500 square feet (325.2 m<sup>2</sup>) to 5,500 square feet (511 m<sup>2</sup>).

The crew tapes off all windows and electrical boxes and covers them with plastic before spraying. Leo and his four-man crew take 2 ½ to 3 days to apply the spray foam to the building envelope. The crew sprays 3 ½ inches (8.9 cm) of CertaSpray open-cell foam on the walls and 5 ½ (14 cm) inches on the roof deck using a Graco E-20 proportioner and a Fusion AP gun. "We ran two Graco E-20s on days when we needed to speed things up," says Torres.

After all SPF was installed, the crew took out their Graco 3000 paint sprayer and applied Bayseal IC, a fire-resistant intumescent coating, over the foam. This coating is a single-component, water-based intumescent paint designed as a substitute for an ignition barrier over foam in attics and crawl spaces.

**UPDATE.  
CREATE.  
VIEW.**

**2011 LISTINGS TODAY!**

**GET IT ONLINE,  
GET IT IN PRINT.**

**DON'T MISS IT!**

**CoatingsPro  
SourceBOOK  
2011**

WWW.COATINGSFROMAG.COM



According to the Bayer MaterialScience product information sheet, BaySeal IC coating is formulated to reduce heat transfer and surface burning in the event of a fire.

With all the talk of the hot and humid weather in Houston, it's easy to forget that in the winter, temperatures can plummet. Torres says that when temperatures dropped, the crew would hold off on spraying. "It isn't worth it if the weather is cold; then we have to heat the material up every 10 to 20 minutes. If this should happen, then what we do is we stop the work and wait for the next day to see if the weather is better."

Regardless of the weather, Torres adhered to strict safety regulations when spraying. The crew wore full protective suits, fresh-air respirators, and gloves.

Looking up: 5 1/2 (14 cm) inches were applied on the roof deck.



Spray foam is becoming the insulation choice for builders and homeowners alike.

### Super Synergy

The synergy between builder, applicator, and foam manufacturer on the Parkgate Reserve homes has helped to create energy-efficient dwellings that provide homeowners with a significant return on their insulation investment. And as a testimony to Frankel Building Group's commitment to building green homes, the Parkgate Reserve homes have qualified for several energy programs, including the United States Green Building Council's LEED for Homes Program, American National Standards Institute (ANSI), and ENERGY STAR.

"Today, more and more homebuyers are starting to realize that living in an energy-efficient home with exceptional indoor air quality begins with selecting reliable, high-performing insulation products," said Rossignol.

And for those homeowners who are still on the fence about spray foam? Frankel says that part of educating home buyers about the advantages of SPF is encouraging them to think about everything that is going into their new homes and how it will perform long term. Frankel offers this advice: "Don't just compare finishes. Don't forget to pay attention to what can't be seen, such as return on investment in energy savings and air quality."

That is how an applicator, builder, and foam manufacturer are pulling together their strengths to support the cause of better building. More consumers are beginning to agree with Torres' opinion: "Spray insulation is one of the best insulation materials to use on houses these days!" **SF**