

Sure-Weld® TPO
16' Membrane

CASE STUDY

Carlisle SynTec Systems 16-Foot TPO Increases Efficiency on Hobby Lobby Project



JOB PROFILE

PROJECT LOCATION:
Grand Prairie, Texas

CARLISLE APPLICATOR:
Seamless Systems

ROOFING SYSTEM:
Carlisle Sure-Weld TPO 16-Foot

Randy Purkey, President of Seamless Systems, is always looking for a competitive edge. The commercial roofing contractor specializes in heat-welded single-ply TPO and PVC roofing systems. Randy and his brother, Dustin, run the business; with Dustin in charge of the Fort Smith, Arkansas, branch, and Randy manning the home office in Memphis, Tennessee.

The company's key clients include large retail chains, shipping companies, and universities; due to Seamless Systems excelling at large commercial projects. When Carlisle SynTec Systems introduced 16-foot TPO, Purkey was convinced the product could save on time and labor costs by minimizing the number of seams making production crews more efficient.

"It was very interesting because the width of rolls has really changed in the course of the last few decades," Purkey says. "Initially, when my dad started his company back in 1980, the width of most rolls was 6 feet, and then we went to 8 and 10 feet and then 12. I never imagined you could go to 16 feet. So, obviously, our main interest was simply more coverage per roll and fewer seams."

Purkey was eager to test drive Carlisle's Sure-Weld 16-foot TPO, and the Hobby Lobby in Grand Prairie, Texas, was the ideal choice for the company's first installation of the product because it is reflective in nature and has inherent root-repellant characteristics. The Fort Smith office tackled the new construction project.



Wide-Open Spaces

The crew at Seamless Systems are very familiar with large retail roofs, and this was right in the company's wheelhouse. The large retail store's roof had relatively few penetrations, and the wide-open areas optimized the benefits of using the 16-foot TPO. "The project was very straightforward," notes Purkey. "I would say there was an average to low number of penetrations on the roof, which made the use of the 16-foot TPO ideal for this job."

The roof area was approximately 55,000 square feet and featured a steel deck. The roof system was installed using the RhinoBond® induction welding method. "We installed two layers of 2.6-inch insulation to meet the energy code requirement of R-30," notes Purkey. "Then we installed RhinoBond with 16-foot Carlisle 60-mil TPO."

Fasteners were enhanced in the perimeters and the corners. "The fastening pattern is not impacted by the wider rolls," notes Purkey. "However, in this particular job, the owner wanted a 90-mile-an-hour wind rider wind warranty, so we did increase the number of fasteners for that reason."



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Fewer Rolls, Fewer Seams

The crew at Seamless Systems saw the benefits of the 16-foot TPO right away. “The 16-foot rolls made it easier on our daily production,” Purkey says. “It was less rolls to handle and fewer seams to weld.”

Purkey cites another reason the wider sheets might come in handy — weather concerns. “Sometimes in the summer if you’re roofing and there’s a chance of rain, we put out a little bit and then try to cover it up, and the 16-foot TPO rolls certainly make this more doable,” he notes. “You could cover more area and not have to worry about the rain getting you, and then move on and do a little bit more.”

Inclement weather was a factor on the Hobby Lobby project. “The most challenging part of this project was the weather,” Purkey says. “This roof was supposed to start in November, and we ended up not starting it until February due to rain in the area.”

Details included curbs, edge metal, scuppers, and downspouts. “We flashed all the curbs with Carlisle’s prefabricated accessories where possible,” Purkey says. “We utilized prefabricated snap-on metal at all the perimeters. At the rear, there were conductor boxes, downspouts, and through-wall scuppers.”

Purkey believes the 16-foot TPO sheets are ideal for wide-open areas, and they were used exclusively on the Hobby Lobby project. He can envision projects in which the company might use primarily 16-foot sheets, with smaller sheets utilized in some tight or cut-up areas. “I believe that would definitely be a possibility on a project that has some wide-open areas and then some areas with a large number of penetrations,” he says.

Maximizing Efficiency

Purkey crunched the numbers, and he believes the 16-foot sheets provide a significant increase in efficiency. “You’re getting close to 1,600 square feet of coverage per roll, and when you have a big wide-open area, this can lead to real production efficiencies,” he notes.



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Ensuring quality workmanship and production efficiency are the goals of the company, and Seamless Systems embraces new products that can help them do the job better and faster. Purkey believes the 16-foot sheets are ideal for the company's bread-and-butter jobs. "We only do TPO and PVC roofs," Purkey says. "Our crews are specialized in heat-welded systems, and a lot of the roofs that we install are larger, more wide-open. And so, it's a huge benefit for us and really enhances our expertise, so to speak."

Seamless Systems has a long relationship with Carlisle. "We have reached the point where we are perennial ESP (Excellence in Single-Ply) contractors, which we're proud of, and we look forward to continuing to grow our business with Carlisle," Purkey says. "Carlisle is at the forefront of new product developments."

Purkey found TPO comprises an increasing share of the market in his area, and he looks forward to his next project with Carlisle's 16-foot TPO. "You know, it has been a long time in the South since I've seen a big project that wasn't TPO specification," he says. "We've got several jobs coming up that we have ordered it for, so we will be installing more 16-foot TPO rolls on several more jobs this year."