

# Tarco ROOFER'S REPORT

## Self-Adhering Underlayment Makes the Grade under Metal

### School District and the Roofer Both Benefit from a Watertight Secondary Barrier

**R**iddiford Roofing of Arlington Heights, Illinois, has been in business for more than a century. Today the company installs practically every type of commercial roofing system, from traditional asphalt built-up roofs to the latest designs of metal roofing, on buildings throughout the Midwest.

George Riddiford is president and CEO. His grandfather and a partner formed Murdock Roofing Company on Chicago's south side in 1901 and his father founded Riddiford Roofing in 1964. George's sons Joe and Chris are vice presidents, continuing the family tradition through four generations, a rarity in any business.

Four generations of Riddifords not only witnessed a hundred years of changes in the roofing industry but also led the way in the adoption of new materials and new technology. Such is the case in the re-roofing of schools in the Manteno Community Unit School District 5, located in Manteno, Illinois, approximately 50 miles south of Chicago. The district has four schools, educating more than 2200 students in preschool through grade 12.

#### Not in the Specs

Riddiford Roofing successfully bid on a large metal re-roofing project, including the elementary school (900 squares), the middle school (25 squares) and the high school (175 squares) for a total roof area of 110,000 square feet.



Tarco LeakBarrier® PS200<sup>HT</sup> self-adhering underlayment provides a watertight secondary water barrier beneath metal roofing on schools in the Manteno School District.

New roofs comprised of McElroy 22-gauge standing-seam steel panels were to be installed on the school buildings after the existing 24-gauge panels were torn off.

According to VP Joe Riddiford, purchasing and evaluating roofing products is usually driven by the architect's specifications. The specification and McElroy allowed the roofer to install either new 30-pound felt or a self-adhering underlayment. "We probably could have saved a few dollars in materials by using 30-pound felt," said Riddiford, "but the self-adhering underlayment offered many important benefits."

Riddiford explained that 30-pound felt does a good job at shedding water but

that it does not provide a watertight covering. "We had a very wet June this year. We were very concerned about the underlayment getting wet before we could install the metal panels," he said. The wet weather motivated him to inquire about using a self-adhering underlayment instead of 30-pound felt. "That's when a representative from our sheet metal company told us about the Tarco PS200<sup>HT</sup> underlayment."

Both the architect and the metal roof manufacturer approved the use of Tarco LeakBarrier® PS200<sup>HT</sup> self-adhering metal underlayment. "The architect is the eyes of the school district," said Riddiford, "so we needed his approval as well as the approval of the metal roof manufacturer."

Choosing PS200<sup>HT</sup> was an easy decision to make because it is a superior underlayment specially designed for use under metal roofing. It is a peel-and-stick product with a high softening temperature so it remains stable up to 260°F. This stability is crucial because temperatures can soar beneath a metal roof. In addition, its polymer surface slides beneath the metal roofing without abrading.

The metal roofing manufacturer had approved 30-pound felt as an underlayment and Riddiford could have gone along with that original specification. But the self-adhering underlayment was clearly a superior product and, in the end, its advantages and convenience outweighed any consideration about material costs. The school district would benefit from the performance of a premium watertight self-adhering underlayment and the roofer would benefit as well.

---

## No Fishmouthing

For metal roofing, a premium underlayment allows contractors to add value while minimizing labor. Contractors can offer building owners a significant upgrade without a major increase in the overall job cost.

Riddiford and his field technicians were astonished at how easy the Tarco PS200<sup>HT</sup> was to handle. "There were no fishmouths. The underlayment remained flat with no curling at the ends," he said. A *fishmouth* is a half-cylindrical or half-conical shaped opening or void in a lapped edge or seam caused by wrinkling or shifting of ply sheets during installation.

"The premium underlayment adhered very well and it didn't take any longer to install," he continued. "We were not hindered in any way using the premium underlayment compared to using the 30-pound felt. In fact, in terms of the entire project, productivity increased." He explained that he had projects in the past where there were a lot of problems with felt. "When 30-pound felt is exposed to rainy weather,

a lot of time is wasted because the damaged felt has to be torn off and replaced. Felt does not hold up well in wet weather. It begins to warp when left exposed for just a couple days to inclement weather."

Labor accounts for the major cost of roofing projects so labor-saving materials and techniques are highly valued. "Productivity is dramatically improved by eliminating the extra labor required when the 30-pound felt is exposed to wet weather and has to be replaced because of warping. The self-adhering underlayment is a lot more productive than 30-pound felt when that extra labor factor is taken into account," he added.

Another factor in selecting a premium underlayment is the adhesion strength. The right amount of tack can be subjective and preferences vary among roofers. Some contractors prefer lower adhesion for easier realignment if the sheets are initially misplaced; others prefer stronger adhesion to ensure a good grip to a particular material or slope. One membrane is often chosen over another because of the contractor's familiarity with the product. "The PS200<sup>HT</sup> adhered well and was easy to handle," said Riddiford.

---

## Dual Protection

Riddiford confided that he was a lot more confident with the self-adhering underlayment. "The school district is getting a much better roofing system," he commented. "Most of the roof areas have slopes of 2/12, although some sections slopes have slopes of 6/12. The 30-pound is only meant to shed water but the peel-and-stick provides a watertight barrier, which is especially important for the low-sloped sections." Wind blown rain could build up and seep through the 30-pound felt. The combination of the metal roof protecting the watertight secondary water barrier assures there will be no leaks for a very long time. The metal roof protects the underlayment from ultraviolet radiation and windblown debris; meanwhile, the underlayment

prevents water intrusion into the building. In short, the metal physically protects a watertight underlayment.

PS200<sup>HT</sup> also has the advantage of adhering exceedingly well to the deck and sealing around nail holes. Saturated felt or synthetic felts nailed to the deck will either blow off or, once exposed, might not prevent massive water entry that could occur with high winds and rain. In some cases water damage can be catastrophic.

"The Manteno area saw a lot of storms this past summer," Riddiford said. "The underlayment was exposed on a lot of roof areas for a period of time during and after the storms. We cannot always install the metal panels on the same day. Until we catch up with the steel panels the underlayment is exposed. I am a lot more confident with PS200<sup>HT</sup> in these circumstances. It was much easier to phase in the installation of the steel panels with PS200<sup>HT</sup> underlayment."

---

## A Change for the Better

The roofing industry tends to be conservative because failures of commercial roofing systems can be costly. Nonetheless, when a new technology emerges that provides superior performance and is easier to install then it will be quickly adopted. Tarco LeakBarrier PS200<sup>HT</sup> is such a product. As has often been the case in the past 100 years, Riddiford Roofing is leading the way. That's why it's one of the largest commercial roofers in the Midwest – and still growing!

---

## CONTACT INFORMATION

**Riddiford Roofing Company**  
2333 Hamilton Road  
Arlington Heights, Illinois 60005  
Phone: 847-437-5771  
Fax: 847-437-5961  
Email: [info@riddiford.com](mailto:info@riddiford.com)  
[www.riddiford.com](http://www.riddiford.com)



One Information Way, Suite 225 ♦ Little Rock, AR 72202  
501-945-4506 ♦ 800-365-4506 ♦ Fax: 501-945-7718 ♦ [www.tarcoroofing.com](http://www.tarcoroofing.com)

