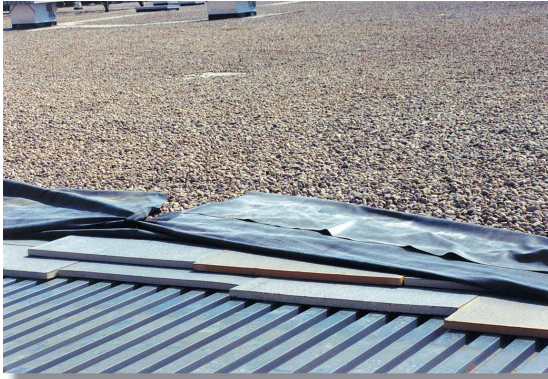


EPDM Roofing Products Helped Steelcase Earn LEED™ Certification



By *Bernie Piszczek, CSI*

Steelcase North America is one of America's fastest growing suppliers of office furniture and space utilization systems. This is also a company deeply dedicated to energy conservation and other environmental issues.

That's why it was no surprise when the company

announced that its new wood furniture manufacturing plant in Caledonia, Michigan, would be designed and constructed to qualify for the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) certification program.

"Steelcase has always been an environmentally friendly company," Randy Bolser, the LEED Coordinator at Steelcase, explained. "Our goal with this new plant was to achieve a 'gold' rating and we achieved silver, missing the gold by only one point. A total of 31 points were available and we achieved 27."

The LEED Rating System™ assigns points for various sustainable achievements in the following categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials & Resources and Indoor Environmental Quality. There are several active versions of LEED, each an expanded improvement over the prior. The Steelcase project was registered under Version 1.0, which provides a maximum of 31 available points. The current version, LEED 2.1, offers the opportunity to score 69 possible points.

A number of high performance products and innovative systems were utilized by Bernie Wernette, AIA, the project manager, to help achieve the LEED silver certification. This included an innovative EPDM roofing system.

The unique roof was designed to allow a small amount of heat to escape in order for the building to remain cool in summer and allow accumulated snow to melt in winter. The roof's drainage system was built with a slightly sloped "M" formation, moving water into



PROJECT BUILDING TEAM:

BUILDING OWNER:

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ROOFING CONTRACTOR:

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4266 CORPORATE EXCHANGE DR.
HUDSONVILLE, MI 49426
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DESIGN/BUILD CONTRACTOR:

OWEN-AMES KIMBALL CO.
300 IONIA NW
GRAND RAPIDS, MI 49503

ARCHITECT:

URS CORPORATION
BERNIE WERNETTE, AIA
3590 SPARKS DR., SE
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EPDM MANUFACTURER:

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valleys where drains are located. The water is then channeled into detention ponds for later use in landscape irrigation.

The roof assembly is composed of a steel deck with a Carlisle SynTec SURE-SEAL® ballasted system, consisting of a loose laid stone ballasted surface spread over an EPDM membrane, which in turn covers two layers of 1-1/2-inch polyiso insulation.

Langerak Roof Systems of Hudsonville, Michigan, was the roofing contractor. Hank Langerak, a partner in the company, explained that this specific roofing system made some solid contributions toward helping achieve the LEED certification.

“We used the water-based Carlisle LV-600 primer, which help contribute to the LEED criteria for low-

VOC emissions. There were credits for recycling and for the use of local materials that the roofing products help to earn for the project,” Langerak said.

The roofing executive was referring to the fact that rubber used in the Carlisle membrane is 100 percent post-consumer recyclable. And since a Carlisle production facility is located within 500 miles of the project, another credit was earned for the use of locally made materials.

The polyiso insulation under the membrane, manufactured by Atlas Roofing Corp., helped the project earn points both because of its recycled content and for being CFC and HCFC free.

Langerak also pointed out another unique recycling opportunity with the roof system.

“With this system,” he explained, “20 or 30 years from now when it’s time to re-roof, they can remove the stone ballast material from the old roof and re-install the same stones on the new roof.”

This is an important feature since the latest LEED version offers additional credits for Resource Reuse.

Although the LEED rating system awards points to projects rather than products, EPDM roofing systems rate extremely high on the sustainability scale. In addition to very high longevity and proven performance, the EPDM components contain a low level of embodied energy and earn high marks for both post-industrial and post-consumer recyclability.

The Steelcase site itself also earned additional LEED points because the company planted more than 958 trees to provide shade to more than 30 percent of the impervious surfaces around the building. They also preserved more than 30 acres of adjacent land as a natural habitat for native plants and animals.

On a more technical side, the Steelcase facility includes charging stations in the parking lot to recharge electric vehicles and an extensive Johnson Controls automated air monitoring system to monitor interior air quality.

Steelcase is just one of a growing number of international corporation voluntarily developing aggressive environmental policies. That’s why Carlisle SynTec and other members of ERA, the EPDM Roofing Association, are engaged in a collective effort to improve and enhance EPDM single-ply technology in terms of durability, value and sustainability.

For more information on the sustainability benefits of EPDM single-ply roofing, contact ERA by calling (703) 684-5020 or visit their website at www.epdmroofs.org.

