

Tectum E Structural Roof Deck LEED Contribution

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Leadership in Energy and Environmental Design (LEED) is a program of the U.S. Green Building Council. LEED certification provides independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

The LEED* Green Building Certification Program evaluates every aspect of the construction process and building components used in new and existing buildings. Tectum Inc. fully endorses the LEED Green Building Rating System. A number of our representatives are LEED-Accredited Professionals and members of local USGBC Chapters. **Tectum E Structural Roof Deck** may contribute to the following credits of the LEED rating system:

EA Prerequisite 2: Minimum Energy Performance - Tectum E Structural Roof Decks provide high R-Values. Installations have few thermal shortcuts, providing very complete R-value coverage.

EA Credit 1: Optimized Energy Performance - Tectum E Structural Roof Decks provide high R-Values up to R-43.

MR Credit 2: Construction Site Waste Management - Tectum E Structural Roof Decks are typically cut to 1" length increments at the factory, reducing or eliminating field cuts and waste at the site. They are shipped without the need for boxing and minimal if any crating, reducing packaging for minimal site waste. Tectum E Structural Roof Decks are biodegradable and can be composted or ground up for soil amendment, eliminating landfill needs.

MR Credit 4: Recycled Content - Tectum E has 11% Post-Consumer recycled content by value as the EPS core is 60% recycled material.

MR Credit 5: Regional Materials - Project must be within 500 miles of the manufacturing site and 500 miles of the raw material extraction sites. Tectum products are manufactured in Newark, OH. Tectum Inc.'s raw materials are extracted in the following locations:

- Aspen Wood Fibers – Rice Lake, WI (44%)
- Magnesium Oxide – Manistee, MI (25%)
- Sodium Silicate Glass – Gurnee, IL (16%)
- Magnesium Sulfate – Newark, OH (9%)
- Calcium Carbonate – Piqua, OH (6%)

MR Credit 6: Rapidly Renewable Resources - Tectum Acoustical Products are an oriented strand board containing 43 percent, by weight, Trembling Aspen (*Populus Tremuloides*) wood fiber harvested at Rice Lake, Wisconsin. The growth time for *Populus Tremuloides* is 10 - 15 years, for pulping and stranding. *Populus Tremuloides* reproduces by "suckering" of stumps after clear cutting. No planting is required. Saplings sucker within a few months after cutting, with new forest stands forming within 2 - 5 years. Typical growth is 5 - 7 feet per year for the first 3 - 5 years. *Populus Tremuloides* is considered a "woody weed" by land managers due to its self propagation and invasiveness and is typically harvested for pulping and stranding when trees reach 30 - 40 feet in height, typically 10 - 15 years.

MR Credit 7: Certified Wood - Tectum E Structural Roof Decks are made from Wisconsin Aspen wood fibers, harvested in Wisconsin by Johnson Timber Corporation. Johnson Timber Corporation is FSC and SFI certified. Chain-of-Custody #: SW-COC-002249.

EQ Prerequisite 3: Minimum Acoustical Performance (LEED For Schools) - Tectum E Structural Roof Decks are manufactured primarily as an acoustical product. They apply directly to this strategy by providing abuse-resistant acoustical solutions. Tectum E Structural Roof Decks can be field painted up to six times without degrading acoustical performance, offering a life-of-the-building, long service life, low maintenance acoustical solution.

EQ Credit 3.1 and 3.2: Construction IAQ Plans - Tectum E Structural Roof Decks can be field painted if required, but do not need to be painted for use. They may contribute to this strategy by eliminating the need for field painting. If field painting is desired, Tectum E Structural Roof Decks do not require priming. Consult Tectum Marketing Bulletin M-77 for field-painting information.

EQ Credit 4.1: Low-Emitting Materials, Adhesives and Sealants - Tectum E Structural Roof Decks do not contain VOC's.

EQ Credit 4.4: Low-Emitting Materials, Composite Wood & Agrifiber Products - Tectum E Structural Roof Decks contain no Urea Formaldehyde.

EQ Credit 10: Mold Prevention (LEED for Schools) - Tectum E Structural Roof Decks do not support the growth of mold or bacteria. Tested per ASTM D3273, three Tectum product samples scored a 10, 9 & 9 out of a possible 10. Tectum products are available with an anti-microbial paint if desired.

EQ Credit 11: Low Impact Cleaning and Maintenance Equipment Policy (LEED for Schools) - Tectum E Structural Roof Decks contribute favorably to this strategy as they are extremely abuse-resistant and intended for life-of-the-building service. They can be cleaned using a vacuum cleaner or a broom and do not require special cleaning supplies.

ID Credit 1: Innovation in Design - Tectum E Structural Roof Decks may qualify for this strategy as they provide structural roof deck, finished ceiling, acoustics, thermal value and nailable roofing substrate in one quick-to-install panel. Use of Tectum E Structural Roof Decks provide the synergy of four trades into one product, reducing construction time and shipping miles and energy, as the panels are factory-assembled and shipped complete and ready for installation.

It is very important to note that Tectum products are listed in the GreenSpec Directory** published by Building Green from the editors of Environmental Building News. Tectum Roof Deck is noted on page 69, section 3511 and Tectum Interior Products are listed on page 230, section 9512.

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