



- 1 Structural Deck
- 2 Vapor Retarder
- 3 STYROFOAM™ Insulation

- 4 Insulation Fastener
- 5 DensDeck® Roof Board
- 6 Sarnafil® Membrane

## EcoSmart Roof™

Roofing systems don't have to be disposable. By maximizing system longevity and recycling at the end of its useful life, the Sika Sarnafil EcoSmart Roof provides you with a roofing option that's good for the environment and your wallet.

### A Proven System Solution

The EcoSmart Roof utilizes Sarnafil® thermoplastic membrane, STYROFOAM™ brand insulation from Dow Building Solutions, and Georgia-Pacific DensDeck® roof board to produce one of the longest lasting, most ecologically responsible roofing systems available.

Sarnafil membrane has a history of proven performance on buildings throughout New England and the rest of the world. This time-proven membrane has lasted for decades on buildings such as the Charrette Corporation building in Woburn, MA where it has been in place for over 30 years.

The white reflective surface of the membrane minimizes solar heat gain into the building,

reducing the building's cooling load; saving energy and diminishing the building's carbon footprint. When the membrane does reach the end of its useful life, it can be recycled back into roofing membrane products at Sika Sarnafil's manufacturing plant in Canton, MA.

STYROFOAM™ DECKMATE™ Plus extruded polystyrene insulation from Dow provides the insulating properties necessary to minimize heat flow through the roofing system. This reduces heating and cooling energy consumption, with the added benefit of being reusable when your building is re-roofed.

### Resistant to Moisture

Extruded polystyrene's ability to resist moisture, which can occur in a roof assembly due to vapor drive and other sources, allows Dow Building Solutions to provide a 40-year reuse warranty on its DECKMATE Plus insulation. This means that the building owner can leave the insulation in place when the building is ready for a new roof.<sup>1</sup>

DensDeck roof board is a highly mold resistant

roof panel that consists of a moisture-resistant, noncombustible core of specially treated gypsum with glass mat facings.

DensDeck improves the fire resistance and wind uplift characteristics of the roofing system, with the added benefit of providing increased resistance to foot traffic to protect the overall roofing system and enhance its longevity.



A Sarnafil membrane installed on the Charrette building in Woburn, MA, in 1975, is still performing today.

**Sika**®

**Sarnafil**®



The re-roofing of a local Boston landmark in 2005, the Marriott Long Wharf hotel, presented Sika Sarnafil with the opportunity to conduct one of the first vinyl roof recycling projects in the U.S. The hotel's old membrane was processed for subsequent reuse in new commercial roofing system products.

Each year some 136 million tons of building construction- and demolition-related debris are generated, according to estimates from the U.S. Environmental Protection Agency. The U.S. Green Building Council has stated that this debris accounts for up to 40 percent of all solid waste in the U.S.

European vinyl membrane manufacturers have been recycling roof membranes since 1994. Sika Sarnafil has built upon the experiences of its European parent company, Sika in Sarnen, Switzerland, and was the first U.S.-based company to introduce a recycling program for commercial roofing membranes.

#### Sika Sarnafil

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## EcoSmart Roof — An Ecological Roofing Solution

**Recycled Content:** **Sarnafil Membrane:** Up to 13% post-industrial recycled content.  
**DensDeck:** Up to 4% post-industrial recycled content.

**Recyclable:** **Installation:** Sarnafil manages a membrane trimmings program to take back scraps and trimming from the construction site.  
**End of Life:** Sarnafil will take back old vinyl membranes to be recycled into new roofing membrane products from any location in New England<sup>2</sup>.

**Reusable:** STYROFOAM™ DECKMATE™ Plus insulation is available with a 40-year re-use warranty.

**Energy Efficient:** A well insulated roofing system with a reflective roof membrane reduces building energy consumption for heating and cooling and reduces its carbon footprint.

Sarnafil membrane meets the cool roof requirements of ENERGY STAR®, LEED® and Green Globes®.

**Improved Air Quality:** Replacing dark colored roofs in New England with reflective roof membrane could reduce CO<sub>2</sub> emissions by up to 1,492 kg / m<sup>2</sup> per year<sup>3</sup>.

**Locally Produced:** Sarnafil membranes are produced locally in Canton, MA.

**Low Life Cycle Cost:** Sika Sarnafil roofing systems have a proven track record of long-term performance, resulting in low life cycle costs. According to the British Board of Agrément, "All available evidence suggests that the durability of Sarnafil membranes when used in accordance with the relevant BBA Certificates should have a life in excess of 35 years<sup>4</sup>."

<sup>1</sup> Subject to the terms and conditions in the Dow Buildings Solutions Limited 40-Year Reuse Warranty.

<sup>2</sup> Mechanically-attached or ballasted roofs only. Subject to terms and conditions of recycling program agreement.

<sup>3</sup> Ronnen Levinson and Hashem Akbari, Heat Island Group, Lawrence Berkeley National Laboratory, "Potential benefits of cool roofs on commercial buildings: conserving energy, saving money, and reducing emission of greenhouse gases and air pollutants."

<sup>4</sup> British Board of Agrément Assessment Report Numbers 08/4531 and 08/4532, 2008.

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