A large, bright yellow sunburst graphic with many sharp points, positioned on the left side of the page.

The **EnergySmart**  
**Roof**<sup>®</sup>

***Reflective Roofing With a Longer Life***

***Sarnafil***



## Committed & Responsible

As an industrial manufacturer, Sarnafil has a long history of producing high-quality roofing materials that deliver superior performance. With over 40 years experience, Sarnafil's roofing systems are recognized for their ability to withstand the test of time. Sarnafil pioneered the fields of formulation, production, and application of thermoplastic roofing and waterproofing membranes. Our solutions are successful and we service our partners by providing beneficial support in the form of comprehensive design review and technical advice during construction.

### Reliability



Among all modern building components, roofing systems have a particularly important function. With so much relying on dependable protection from harsh weather, there is no room for experimental roofing materials when designing projects. Sarnafil roofing systems are engineered to withstand extreme environmental exposure and to have long-lasting service lives. Sarnafil provides comprehensive warranties on the performance of our materials and systems.

### Ecology

At Sarnafil, we are committed to our responsibility to protect the environment. Our ecological mission statement is based on sound principals; we strive to protect our natural resources, to reduce the risk of pollution, and to avoid irreversible impairment of the earth's capacity for natural regeneration. In fact, national research has shown that Sarnafil's **EnergySmart Roof®** can reduce energy consumption, abate urban heat, and help to slow the reaction of smog forming pollutants.



pre-emptive initiative designed to abate urban heat and reduce air pollution. In light of this environmental priority, Sarnafil's **EnergySmart Roof** is quickly gaining recognition as a major breakthrough. Sarnafil delivers the highest levels of solar reflectance in a unique roofing membrane that can point to a 40-year history of proven durability.

### Partnerships



Building owners, designers, and roofing contractors alike can depend on Sarnafil to provide the industry's best solutions to their roofing needs. Sarnafil's hot air welded thermoplastic membrane systems are adhered, mechanically attached, and ballasted. These unrivaled membranes can provide the right solution for specific applications regardless of building usage, slope, configuration, height, wind exposure, or location. Sarnafil professionals are available to meet and discuss individual projects, system design, and/or application as needed. Our success and reputation, as well as that of the construction team depend upon a commitment to the proper design and installation of the roofing system.

### Innovation

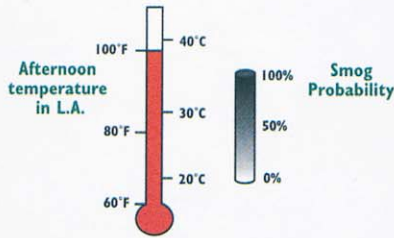
As the industry leader in thermoplastic membrane technology, Sarnafil responds to the changing needs of our industry and of our society through advanced product development and innovation. In 1999, the U.S. Environmental Protection Agency (EPA) and the Department of Energy (DOE) announced a formal campaign to publicly promote the use of highly reflective roofing products. This energy conservation campaign is also a



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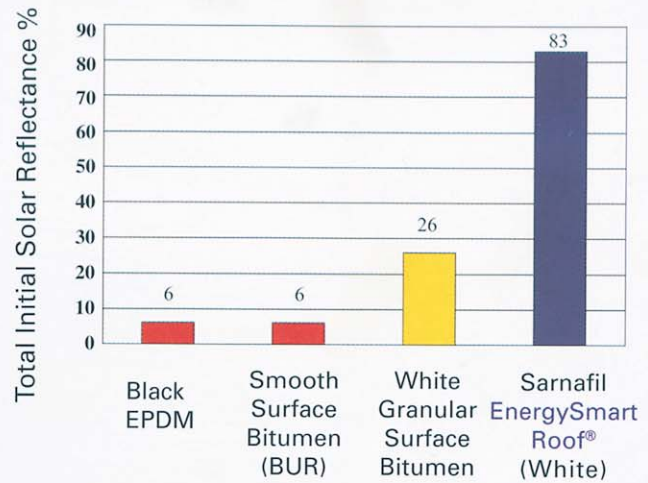
## The Smog Connection

- Urban Heat Islands are not only uncomfortably hot, they are smoggier.
- Smog is created by photochemical reactions of pollutants in the air, and these reactions are more likely to intensify at higher temperatures.
- In Los Angeles, for every degree the temperature rises above 70°F, the incidence of smog increases by 3%.



Graphic Courtesy of U.S. Department of Energy/LBNL

## REFLECTANCE OF COMMON ROOFING MATERIALS



Source: Cool Roofing Material Database/Lawrence Berkeley National Laboratory  
<http://eetd.lbl.gov/CoolRoof/membrane.htm>

## Air Quality

Dark colored roofs absorb a tremendous amount of solar radiation and become extremely hot. These hot roof surfaces are being targeted because they are unnecessary sources of heat that contribute to elevated air temperatures. In most geographic areas, an air temperature increase translates into an air quality decrease. Highly reflective roofs diminish this condition and have recently been identified as the environmentally preferable roofing solution.

Sarnafil's **EnergySmart Roof** is designed to help alleviate oppressive urban air temperatures, which will in turn slow the reaction of smog forming pollutants.

Sarnafil Inc. is a Charter Partner in the U.S. Environmental Protection Agency's ENERGY STAR® Roof Products Program. The Program is a voluntary partnership between EPA and a select group of roof product manufacturers and is focused on promoting the environmental and economic benefits of reflective roofing.

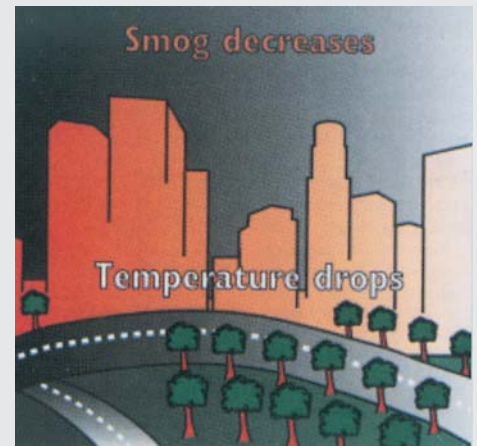
EPA and the U.S. Department of Energy created ENERGY STAR label programs to help consumers quickly and easily identify products that can save them money and protect the environment by saving energy.

Sarnafil Inc. is also a Charter Business Partner in the U.S. Department of Energy's Rebuild America Program. Rebuild America is a network of more than 400 community partnerships that align the interests of local and state governments, schools, universities, housing agencies and private businesses. As a Business Partner, Sarnafil provides technical assistance and support to community partnerships that are interested in roofing programs featuring the highly reflective **EnergySmart Roof**.

The **EnergySmart Roof** was analyzed by researchers at the Lawrence Berkeley National Laboratory. This highly reflective, white roofing membrane was found to have an initial solar reflectance of 83% and a corresponding thermal emissivity of 92%. In combination, the reflective and emissive performance values were used to calculate a Solar Reflective Index (SRI).

Sarnafil's **EnergySmart Roof** has a SRI of 104. This is particularly significant because the SRI was designed to measure the relative reflective and emissive performance properties of roofing surfaces on a scale of 1-100.

A universal proliferation of highly reflective roofing surfaces is recommended by both the scientific and environmental communities. This is a practical course of action designed to help mitigate systematic increases in urban air temperature and to help improve air quality.



Graphic Courtesy of U. S. Department of Energy/LBNL

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