# White vs. Dark Roofs

Most of the roofs in the world (including more than 90% of roofs in the United States) are dark-colored. The surface of a black roof (usually coated with asphalt) can increase in temperature as much as 90 degrees F., reaching temperatures of 150-190 degrees F.

White, reflective coated membrane roofs — like SOPRASTAR — typically increase only 10-25 degrees F. during the hottest period of the day. This reduces heat-gain which can, in turn, decrease the demand for electric power by 10-50%, depending upon your building's interior square footage, size and type of HVAC equipment, R-value of insulation and other criteria.

SOPRASTAR uses a patented tri-laminate synthetic film which adheres on top of the SBS membrane. Competing products use a factory-applied coating or synthetic chips fused to a granular surface.

#### The difference?

- Membranes that are coated show tobacco staining (yellow stains) after six months of UV exposure
- Membranes with synthetic chips can lose their reflectivity as the chips flake off during normal wear and tear (called degranulation).
- Granule surfaces harbor pollutants and promote black algae growth, resulting in a reduction of reflectivity



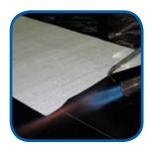


#### Installing SOPRASTAR in your next new building or refurbishment has other distinct advantages over synthetic-coated membranes:

- No re-coating every few years to maintain reflectivity
- Long-lasting protection
- Comprehensive warranty
- High tear-resistance

#### **Application methods**

SOPREMA offers 4 application methods, allowing you to choose which method is the best for your next project:



Heat welded



Self-adhered



Hot asphalt



**Cold adhesive** 

WHAT'S
COOL
ABOUT A
SOPRASTAR
WHITE
SURFACE
ROOF?

### ONCE INSTALLED, SOPRASTAR KEEPS THE MAJORITY OF ITS REFLECTIVITY FOR 10+ YEARS, CUTTING BUILDING ENERGY USAGE BY 10-50%.

What is a cool roof? It's one that reflects and emits the sun's heat back to the sky instead of transferring it to the building below, thus reducing energy usage primarily for HVAC equipment.

The greater the reflectivity, the cooler your rooftop remains, hence keeping the building's interior cooler. SOPRASTAR has made thin-layer, heat-reflective waterproof membrane for years and recently earned the coveted ENERGY STAR® standard for roofing reflectivity.

In fact, SOPRASTAR earned the highest rating for "solar reflectance after three years" among six major manufacturers of SBS modified bitumen roofing within this ENERGY STAR product category.

What's more, SOPRASTAR was given a lofty ranking by the prestigious Cool Roof Rating Council for extremely high reflectivity. Based on 10,000 hours of in-house QUV testing, SOPRASTAR is expected to maintain approximately 96% of its reflectivity for 10+ years.









#### **CONTRIBUTING TO A GREENER ENVIRONMENT**



Building owners see a tangible result when using SOPRASTAR in lower energy bills throughout the year. But there are many hidden benefits that go a long way toward a healthier, greener environment.

SOPRASTAR helps reduce air pollution, greenhouse gas emissions and smog formation, particularly in congested areas. It also helps diminish what's known as the

"heat island" effect in cities and suburbs.

For millions of Americans living in and near cities, heat islands are a growing concern. A heat island occurs when there is an expanse of heat-absorbing dark parking lots and road pavement coupled with black rooftops and sparse vegetation. These conditions are ripe for raising ambient air temperature as much as 8-10 degrees higher than the temperature in the surrounding countryside.

A commercial building with a cool roof — or any other sustainable measure — will help lessen environmental impact and bring us closer to a greener planet.

For more information about SOPRASTAR cool roof technology, talk to your SOPREMA representative.





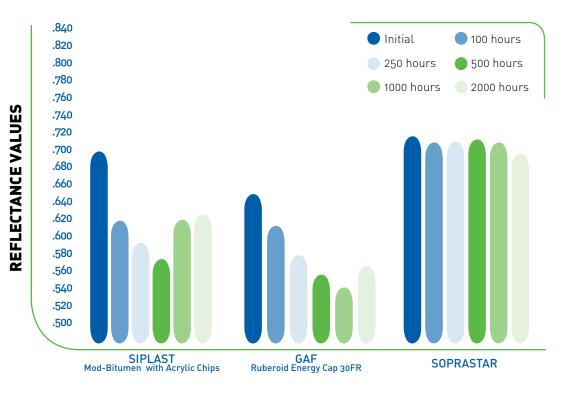
# SopraStart



#### SOPRASTAR RETAINS THE MOST REFLECTANCE!

## Sopra Start

#### **ENERGY STAR STUDY QUV CHANGE IN REFLECTANCE**



Reflectance is the proportion of light that a surface reflects compared to the amount of light that falls on that surface. The color black has a reflectance value close to zero while white has a reflectance value of nearly 100 which keeps a building light and cool. All colors fit between these two extremes (called the start value).

ENERGY STAR conducted research on the long-term reflectivity of three manufacturers of white modified bitumen membranes. After 2000 hours of usage, only SOPRASTAR closely matched its starting value while SIPLAST and GAF fell off dramatically. Proof that SOPRASTAR keeps the most reflectivity over time\*.

\*The information contained in this brochure has been verified in Soprema's own and/or in independent laboratories.

