

EnergyStar® ROOF PRODUCTS PROGRAM LAUNCHED



The U. S. Environmental Protection Agency (EPA) announced its new Energy Star® Roof Products Charter Partner program at the NRCA convention in Phoenix on Feb. 9.

The program will allow manufacturers who qualify to use the Energy Star label on reflective roof products meeting EPA's specifications for solar reflectance and reliability.

The Energy Star label, designed by EPA and the Department of Energy (DOE) to help consumers easily identify energy-efficient products, is already used on a variety of products, including heating and cooling systems, household appliances, office equipment, insulation, and even homes.

According to the EPA, approximately \$40 billion is spent annually in the U.S. to air condition buildings. This uses one-sixth of all electricity generated in the country each year. Reflective roof products, however, can reduce the amount of air conditioning needed to cool these buildings by minimizing the amount of heat entering them from the sun, thereby reducing energy bills by up to 50 percent. In fact, reflective roofs can lower roof surface temperature by up to 100 degrees Fahrenheit, according to the EPA. They can also reduce peak cooling demand by 10 to 15

percent, enabling building owners to buy smaller, less expensive, HVAC systems. The extent of savings depends on a number of factors, including climate, insulation levels, and type of roof installed.

Energy Star-labeled roof products also benefit the environment because, in the U.S., most of the energy used to cool buildings is created by burning fossil fuels, a process which releases pollutants into the air. Consequently, by decreasing the nation's energy needs, reflective roof products will decrease the air pollution produced by power plants.

Energy Star-labeled products can also help reduce the "heat island effect," a phenomenon in which dark, heat-absorbing buildings and paved areas make the air in urban areas as much as 8 degrees hotter than surrounding communities. (See "Georgia State University Roof Temperature Study" elsewhere in this issue). By reducing the "heat island effect," these products also help reduce smog levels and the associated heat- and smog-related health problems.

The EPA anticipates that roofing manufacturers will want to produce, and roofing consultants will want to specify Energy Star-labeled products because they offer "increased value" to the customer—the building owner and the community at large.

EnergyStar® Roof Products Program Product Specifications

LOW-SLOPE ROOFS: Surfaces with a slope of 2:15 inches or less*	
Characteristic	Performance
Energy efficiency	
Initial solar reflectance	Greater than or equal to 0.65
Maintenance of solar reflectance	Greater than or equal to 0.50 three years after installation under normal conditions.
Reliability	
Manufacturers warranty for defects in materials and manufacturing.	Each company's warranty for reflective roof products must be equal in all material respects to the warranty offered by the same company for comparable non-reflective roof products. A company that sells only reflective roof products must offer a warranty for comparable non-reflective roof products.
STEEP-SLOPE ROOFS: Surfaces with a slope greater than 2:12 inches*	
Energy efficiency	
Initial solar reflectance	Greater than or equal to 0.25
Maintenance of solar reflectance	Greater than or equal to 0.15 three years after installation under normal conditions.
Reliability	
Manufacturers warranty for defects in materials and manufacturing.	Each company's warranty for reflective roof products must be equal in all material respects to the warranty offered by the same company for comparable non-reflective roof products. A company that sells only reflective roof products must offer a warranty for comparable non-reflective roof products.

* For roof products that can be applied to either low-slope or steep-slope roofs, manufacturers should refer to the low-slope roof tables for Energy Star® specifications.