

PRODUCT INFORMATION



EPA looks at Energy Saving Roofs

The EPA's Energy Star program has been labeling energy efficient products since 1993 and during the past few years has begun looking at roofing.

The EPA's position is that a roof is more than a surface for HVAC systems or outdoor living areas. Their newest program is looking at rating roofs for their reflective properties and the industry is comparing one product against another. From light colors to the most shine, companies are going high-tech to provide building owners with roof coatings that reduce the amount of heat gain to the interior. Combined with energy savings, roof coatings manufacturers are also addressing product longevity and durability.

"If the building has air conditioning, there are energy saving benefits in lighter roofs," said Dr. Hasem Akbari, leader of the Heat Island Group at the Lawrence Berkeley National Laboratory in Berkeley, Calif. For fifteen years, Dr. Akbari has been studying the reflectivity of building materials at this Department of Energy-funded lab and has calculated the reflectivity of several roof surfaces. According to the Solar Reflective Index (SRI), a new rating system developed by the National Lab, the SRI of materials range dramatically, from one for a black EPDM to 85 for a white. Roofing materials from green asphalt shingles (19) to new galvanized steel (46) to white coatings (73) may one day be rated according to reflectivity, just as they are for fire, wind, and hail.

Even though reflectivity studies have been conducted for decades, the market really has not responded as it has to other features such as insulation. In fact, ASTM just recently passed a standard for white coatings (D-G083) without a reflectivity component. (ASTM D-2824 for aluminum coatings requires a minimum reflectivity of 50 percent). But with EPA's Energy Star rating program and the Department of Energy's Cool Communities initiative, there is a broad range of interest being developed to promote the lighter is better concept." I view the reflective and energy savings as things we have known about but never quantified," said Eileen Dutton, CRRC committee member. "The strength in numbers plus the backing of the EPA and DOT is going to be an added benefit to the roof coatings industry."

Another wrinkle in this reflectivity issue is to whom does it appeal? Much of the interest appears to be in the commercial segment, although some observers think the residential market could be enormous. But where? There is the lingering perception that reflectivity is a regional solution mainly for the South and West.

Besides the money saved by building owners, utilities may soon be getting involved in roofing for the first time, offering owners rebates for "reflective roofing" just as they offer them for energy-efficient appliances and extra insulation. Also, code bodies are showing an interest in reflectivity, and there is nothing like a mandate to kick things into gear.

DURATEK Acrylic-Ceramic Insulating Roof Coatings are among the highest heat reflecting products in the world. A Total Solution for weather-proofing and insulating any roof system.