

**Robert Kneuer**  
Senior Vice President  
Technical Director  
Email: bobkneuer@enecon.com

6 Platinum Court  
Medford, NY 11763-2251 U.S.A.  
Tel: 516-349-0022 Fax: 516-349-5522

## *What is a Cool Roof?*

A cool roof is one that reflects the sun's heat and emits absorbed radiation back into the atmosphere. The roof literally stays cooler and reduces the amount of heat transferred to the building below, keeping the building a cooler and more constant temperature. Imagine wearing a white or a black T-shirt on a hot day. By wearing the white T-shirt you will remain cooler than if you wore a black T-shirt because it reflects more sunlight and absorbs less heat. Cool roofs like a white T-shirt, keep the internal temperature of the building cooler.

The two basic characteristics that determine the 'coolness' of a roof are solar reflectance (SR) and thermal emittance (TE). Both properties are rated on a scale from 0 to 1, where 1 is the most reflective or emissive.

The CRRC measures these two properties for roofing products, both for the product's initial values and after three years of weather exposure. The CRRC publishes the results on the online Rated Products Directory (see the attached ENESEAL HR listing). The online Directory is available to the general public at no charge.

Solar Reflect means Solar Reflectance and is the fraction of solar energy that is reflected by the roof surface. Its values range from 0 to 1

Thermal Emit means Thermal Emittance and it is the relative ability of the roof surface to radiate absorbed heat. Its values range from 0 to 1

Solar Reflectance and Thermal Emittance are two radiative properties used to measure the "coolness" of a roof

SRI means Solar Reflectance Index and it is another measure for comparing the "coolness" of roof surfaces. It is calculated from Solar Reflectance and Thermal Emittance values using the ASTM E 1980 standard. Its values range from slightly negative numbers (less than 0) to 110.

Several organizations use the measured Solar Reflectance and Thermal Emittance values and the calculated Solar Reflectance Index to define minimum cool roof requirements. The attached chart lists these organizations with their minimum cool roof requirements along with the ENESEAL HR "cool roof" properties.

As you can see the "cool roof" values for ENESEAL HR are equal to or greater than all of the minimum requirements of these organizations.


## Cool Roof Rating Council

### Rated Products Directory: Search Results [ [new search](#) ] [ [export](#) ]

(last updated 6 Dec 2012 19:09 CST)

Showing Search Results for:

Company: ENECON Corporation

CRRC Prod. ID	Manufacturer Information (sorted +)	Brand	Model	Color Category	Product Type	Solar Reflect.		Therm Emit.		SRI 		Slope Application	Note about Ratings
						init	3 yr	init	3 yr	init	3 yr		
1030-0001	ENECON Corporation Robert Kneuer (516-349- 0022)	ENESEAL	HR White	Bright White	Field- Applied Coating	0.75	0.58	0.91	0.90	93	69	Low/Steep	

