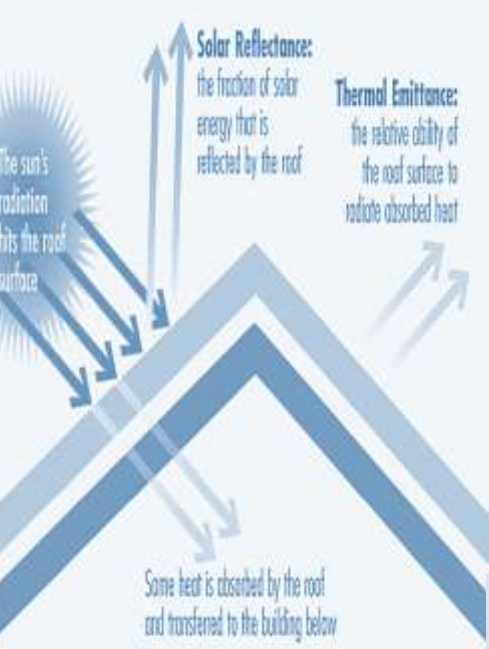




FeelCool XT

Nanoengineered Infrared Reflective Paint



Electromagnetic Spectrum of Light

Sunlight consists of electromagnetic rays of different wavelengths. Three such domains which are predominant in natural sunlight

- Ultraviolet Light (100-380 nm)- Prolonged exposure is harmful to eyes and skin resulting in effects ranging from dryness, ageing to cancer
- Visible Light (380-800 nm)- Detected by the human eye and perceived as visible light. Required by humans to visual and interact with the surroundings
- Infrared Light (800-2500 nm)- Carries maximum amount thermal energy.

The incident radiation (UV+IR rays +Vis) on interacting with the surface can undergo the following processes

- **Absorption**
- **Reflection**
- **Emittance**

Cool Roof Council USA

The Cool Roof Rating Council (CRRC) maintains a credible and unbiased, third-party rating program for measuring and reporting the radiative properties of roof

Cool Roof Rating Council- Guidelines

For a Paint to be called as Cool Roof, they should meet the following

| | Initial Value | The value after 3 years |
|------------------------|---------------|-------------------------|
| Reflectance | ≥ 0.65 | ≥ 0.5 |
| Emittance | ≥ 0.75 | ≥ 0.75 |
| Solar Reflective Index | 82 | 65 |

- Solar reflectance- % of Incident Solar heat Reflected
- Emissivity- (also called thermal emittance)- % of absorbed solar heat emitted
- Solar Reflectance Index (SRI)- Index for performance of cool roofs

“Heat Reflective Paint prevents the IR Rays from absorbing on the surface and increases the amount of emitted energy from the surface thus reducing the cooling energy requirement”