

To the EPA Energy Star Program -

I'm disappointed to see that the latest draft of Energy Star regulations for roofing materials have dropped the thermal emittance and/or SRI requirement in favor of simply reporting thermal emittance values. This capitulation to the bare metal roof industry has no logical basis.

The logic/excuse given - that buildings in colder climates would experience lower net energy savings if they're required to have higher thermal emittance - is ridiculous. This argument assumes that a low thermal emittance of roofs helps a building retain heat during cold weather when the sun is not out. Theoretically, the roof with lower thermal emittance will have less heat loss. Metal roofs have such high thermal conductivity that the temperature of a metal roof will be equal to the outside air temperature when the sun's not shining. So heat radiated to the atmosphere will be dependent only on thermal emittance.

But in actuality, if there's any frost, moisture or snow on the roof, thermal emittance differences are negated. Not to mention the effects of dirt on a roof. There's just not that much time during the heating season when you have a clean, dry roof exposed to a sunless sky - especially in colder - and snowier - climates.

Thermal emittance only plays a major role on metal roofs during the cooling season when the sun is shining. The lower emittance of bare metal roofs does not allow them to radiate heat away, thus keeping even the most reflective roofs too hot, and causing a building to use more cooling energy.

The inability to stand up the specious claims of industry makes the Energy Star program obsolete and irrelevant. Thank goodness for California and the Cool Roof Rating Council.

Dr. Lisa Gartland  
PositivEnergy