

Standard Light Cream versus Energy Star Light Cream

The reported information below is done in accordance with ASTM E 1980-01. The comparative data is based upon an ambient air temperature of 37° C. The highlighted numbers represent the Solar Reflectance Index and product surface temperatures.

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product Colour	<b>STANDARD LIGHT CREAM</b>		
Thermal emittance=	0.850		
TSR=	0.696		
Solar Absorbance=	0.304		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.294	0.289	0.285
SRI=	<b>83.20</b>	<b>83.91</b>	<b>84.53</b>
Standard solar conditions Solar Flux=1000 W/m2 Ambient Air Temp=310K (37C) Ambient Sky Temp=300K (27C) No conductive heat transfer			
Low Slope Roofing Temperatures for above standard solar conditions			
Surface Temperature (K)=	331	324	317
Surface Temperature (C)=	<b>58</b>	<b>51</b>	<b>44</b>
Surface Temperature (F)=	137	123	111

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product Colour	<b>ENERGY STAR LIGHT CREAM</b>		
Thermal emittance=	0.900		
TSR=	0.787		
Solar Absorbance=	0.213		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.190	0.189	0.188
SRI=	<b>97.46</b>	<b>97.60</b>	<b>97.74</b>
Standard solar conditions Solar Flux=1000 W/m2 Ambient Air Temp=310K (37C) Ambient Sky Temp=300K (27C) No conductive heat transfer			
Low Slope Roofing Temperatures for above standard solar conditions			
Surface Temperature (K)=	323	319	314
Surface Temperature (C)=	<b>50</b>	<b>46</b>	<b>41</b>
Surface Temperature (F)=	122	114	106