

Standard Stone versus Energy Star Stone

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 STONE</b>		
Thermal emittance=	0.850		
TSR=	0.531		
Solar Absorbance=	0.469		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.468	0.460	0.453
SRI=	<b>59.90</b>	<b>61.00</b>	<b>61.98</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)=	344	332	321
Surface Temperature (C)=	<b>71</b>	<b>59</b>	<b>48</b>
Surface Temperature (F)=	160	139	119

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product Colour	<b>ENERGY STAR STONE</b>		
Thermal emittance=	0.900		
TSR=	0.688		
Solar Absorbance=	0.312		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.291	0.289	0.288
SRI=	<b>83.69</b>	<b>83.92</b>	<b>84.12</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)=	136	123	111