

Standard Botanic versus Energy Star Botanic

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 BOTANIC</b>		
Thermal emittance=	0.850		
TSR=	0.084		
Solar Absorbance=	0.916		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.939	0.923	0.908
SRI=	<b>-0.29</b>	<b>1.77</b>	<b>3.60</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)=	376	355	334
Surface Temperature (C)=	<b>103</b>	<b>82</b>	<b>61</b>
Surface Temperature (F)=	218	179	141

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product Colour	<b>ENERGY STAR BOTANIC</b>		
Thermal emittance=	0.900		
TSR=	0.279		
Solar Absorbance=	0.721		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.707	0.703	0.699
SRI=	<b>28.91</b>	<b>29.42</b>	<b>29.88</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)=	361	344	328
Surface Temperature (C)=	<b>88</b>	<b>71</b>	<b>55</b>
Surface Temperature (F)=	190	160	131