

Standard Broken White versus Energy Star Broken White

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 BROKEN WHITE</b>		
Thermal emittance=	0.850		
TSR=	0.711		
Solar Absorbance=	0.289		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.279	0.274	0.269
SRI=	<b>85.34</b>	<b>86.02</b>	<b>86.61</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)=	330	323	316
Surface Temperature (C)=	<b>57</b>	<b>50</b>	<b>43</b>
Surface Temperature (F)=	135	122	110

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product Colour	<b>ENERGY STAR BROKEN WHITE</b>		
Thermal emittance=	0.900		
TSR=	0.813		
Solar Absorbance=	0.187		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.164	0.163	0.162
SRI=	<b>101.10</b>	<b>101.23</b>	<b>101.34</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)=	321	317	313
Surface Temperature (C)=	<b>48</b>	<b>44</b>	<b>40</b>
Surface Temperature (F)=	119	112	105