

Standard Warm Clay versus Energy Star Warm Clay

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	STANDARD		
Colour	WARM CLAY		
Thermal emittance=	0.850		
TSR=	0.469		
Solar Absorbance=	0.531		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.534	0.524	0.516
SRI=	51.29	52.54	53.64
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)=	349	336	323
Surface Temperature (C)=	76	63	50
Surface Temperature (F)=	168	145	122

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing			
Product	ENERGY STAR		
Colour	WARM CLAY		
Thermal emittance=	0.900		
TSR=	0.595		
Solar Absorbance=	0.405		
Convective coefficient=	Wind Condition		
	Low	Medium	High
	5	12	30
X=	0.385	0.383	0.381
SRI=	70.94	71.23	71.50
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)=	338	328	320
Surface Temperature (C)=	65	55	47
Surface Temperature (F)=	149	132	116