Standard Terracotta versus Energy Star Terracotta

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	**TERRACOTTA**
Thermal emittance=	0.850
TSR=	0.158
Solar Absorbance=	0.842

	Wind Condition		
	Low	Medium	High
Convective coefficient=	5	12	30
X=	0.861	0.846	0.832
SRI=	**9.38**	**11.29**	**12.99**

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)=	371	351	332
Surface Temperature (C)=	**98**	**78**	**59**
Surface Temperature (F)=	209	173	138

ASTM E1980-01 Solar Reflectance Index Calculator for Low-Slope Roofing

Product	**ENERGY STAR**
Colour	**TERRACOTTA**
Thermal emittance=	0.900
TSR=	0.424
Solar Absorbance=	0.576

	Wind Condition		
	Low	Medium	High
Convective coefficient=	5	12	30
X=	0.559	0.556	0.553
SRI=	**47.95**	**48.36**	**48.73**

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)=	350	337	324
Surface Temperature (C)=	**77**	**64**	**51**
Surface Temperature (F)=	171	147	124

ASTEC PAINTS

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