Standard Cobalt versus Energy Star Cobalt

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	**COBALT**
Thermal emittance=	0.850
TSR=	0.142
Solar Absorbance=	0.858

	Wind Condition		
	Low	Medium	High
Convective coefficient=	5	12	30
X=	0.878	0.863	0.849
SRI=	**7.28**	**9.23**	**10.95**

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)=	372	352	332
Surface Temperature (C)=	**99**	**79**	**59**
Surface Temperature (F)=	211	174	138

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

Product	**ENERGY STAR**
Colour	**COBALT**
Thermal emittance=	0.900
TSR=	0.338
Solar Absorbance=	0.662

	Wind Condition		
	Low	Medium	High
Convective coefficient=	5	12	30
X=	0.647	0.643	0.640
SRI=	**36.61**	**37.08**	**37.50**

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)=	356	341	327
Surface Temperature (C)=	**83**	**68**	**54**
Surface Temperature (F)=	182	155	128

ASTEC PAINTS

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