



**LEED v4 Sustainable Sites (SS):
SSc5 Heat Island Reduction for AEP Span**

Applicable Credits:

SSc5.1 OPTION 1. Heat Island Reduction (1-2 points)

AEP Span architectural metal roof panels are available in a range of colors which meet or exceed LEED® v4 criteria for the Heat Island Reduction credit.

The criteria for this credit requires that roofing materials have a Solar Reflectance Index (SRI) equal to or greater than the three-year aged SRI values in Table 1 below. If three-year aged value information is not available, use materials that meet initial SRI values.

	Slope	Initial SRI	3-Year Aged SRI
Low Sloped Roof	≤2:12	82	64
Steep Sloped Roof	≥2:12	39	32

Table 1. Minimum solar reflectance index value, by roof slope

Refer to the AEP Span Color Performance Data chart for information on solar reflectance, thermal emissivity, and SRI values for our cool metal roof colors.

Notable Reference:

This credit is achieved through a combination of non-roof and roof measures to reduce heat islands. The following calculation determines if a project design meets the credit threshold:

$$\frac{\text{Area of Nonroof Measures}}{0.5} + \frac{\text{Area of High-Reflectance Roof}}{0.75} + \frac{\text{Area of Vegetated Roof}}{0.75} \geq \frac{\text{Total Site Paving Area}}{\text{Total Roof Area}}$$

Initial SRI thresholds for roofing materials has increased from LEEDv2009.

LEED v4 now factors in a three-year aged SRI value for roofing material, which measures solar performance over time. The Cool Roof Rating Council (CRRC) website lists AEP Span three-year aged information. Note that the CRRC initial and three-year SRI values are based on generalized “color families.” The data listed on the CRRC website is very conservative as it does not reflect the actual performance of each color. AEP Span does not have three-year aged SRI values for each of its colors.



AEP Span Color Performance Data

Please note that color specific *CRRRC Notification of Product Rating* can be produced upon request

PRODUCT DESCRIPTION	CA TITLE 24 & ENERGY STAR						CA Title 24	LEED						OTHER		
	via CRRRC listings (data based on color families)				Energy Star			via Accredited Independent Testing Laboratory (using ASTM C1549, C1371, & E1980)								
	CRRC Reference Number	Solar Reflectance (Init.)	Thermal Emittance (Init.)	SRI Init.	Low Slope	Steep Slope		Solar Reflectance (Init.)	Thermal Emittance (Init.)	SRI Init.	Low Slope (Leed V3)	Steep Slope (Leed V3)	Low Slope (Leed V4)		Steep Slope (Leed V4)	LRV
BARE ZINCALUME®																
ZINCALUME® Plus	1014-0002	0.68	0.30	65	✓	✓	REFER TO CALIFORNIA ENERGY COMMISSION (CEC) REQUIREMENTS	0.68	0.30	64		✓		✓	67	
DURA TECH™ NT COLORS																
CHESTNUT BROWN	0818-0034	0.32	0.83	31		✓			0.35	0.83	36		✓			12
DENALI GREEN	0818-0028	0.25	0.83	22		✓			0.30	0.83	29		✓			11
DESERT BEIGE	0818-0042	0.45	0.83	49		✓			0.51	0.84	58		✓		✓	39
LIGHT STONE	0818-0033	0.55	0.83	63		✓			0.60	0.84	70		✓		✓	53
OLD TOWN GRAY	0818-0039	0.35	0.83	35		✓			0.40	0.84	43		✓		✓	27
RUSTIC RED	0818-0031	0.35	0.83	35		✓			0.40	0.84	43		✓		✓	13
SURF WHITE	0818-0036	0.55	0.83	63		✓			0.63	0.84	74		✓		✓	59
TAHOE BLUE	0818-0027	0.25	0.83	22		✓			0.33	0.84	33		✓			14
WEATHERED COPPER	0818-0035	0.32	0.83	31		✓			0.32	0.83	32		✓			11
WINTER WHITE	0818-0044	0.70	0.83	84	✓	✓			0.73	0.83	88	✓	✓	✓	✓	74
DURA TECH™ 5000 & DURA TECH™ MX COLORS																
COLONIAL RED	0818-0016	0.25	0.83	22		✓			0.34	0.85	35		✓			9
DARK BRONZE	0818-0018	0.25	0.83	22		✓			0.32	0.84	32		✓			8
FOREST GREEN	0818-0012	0.25	0.83	22		✓			0.30	0.84	29		✓			9
LEAF GREEN	0818-0015	0.25	0.83	22		✓			0.30	0.85	30		✓			11
MATTE BLACK	0818-0046	0.25	0.83	22		✓			0.30	0.84	29		✓			5
METALLIC CHAMPAGNE	0818-0038	0.35	0.75	32		✓			0.48	0.84	54		✓		✓	33
METALLIC COPPER	0818-0006	0.35	0.75	32		✓			0.48	0.83	53		✓		✓	29
METALLIC SILVER	0818-0003	0.35	0.75	32		✓			0.57	0.82	65		✓		✓	50
MIDNIGHT BRONZE	0818-0055	0.25	0.83	22		✓			0.28	0.84	27		✓			7
OLD TOWN GRAY	0818-0009	0.35	0.83	35		✓			0.40	0.85	43		✓		✓	27
PARCHMENT	0818-0047	0.45	0.83	49		✓			0.51	0.84	58		✓		✓	40
PEBBLE	0818-0059	0.32	0.83	31		✓		0.43	0.85	48		✓		✓	27	
REGAL BLUE	0818-0008	0.25	0.83	22		✓		0.30	0.84	29		✓			10	
REGAL WHITE	0818-0049	0.70	0.83	84	✓	✓		0.73	0.84	88	✓	✓	✓	✓	75	
SAGE GREEN	0818-0056	0.35	0.83	35		✓		0.38	0.84	41		✓		✓	21	
SIERRA TAN	0818-0020	0.45	0.83	49		✓		0.49	0.84	55		✓		✓	34	
SILVERSMITH	0818-0058	0.35	0.75	32		✓		0.52	0.82	58		✓		✓	54	
SLATE GRAY	0818-0057	0.25	0.83	22		✓		0.32	0.85	33		✓			12	
TAHOE BLUE	0818-0007	0.25	0.83	22		✓		0.33	0.84	33		✓			14	
TERRA COTTA	0818-0037	0.35	0.83	35		✓		0.39	0.84	41		✓		✓	15	
VINTAGE®	1014-0003	0.30	0.70	22		✓		0.30	0.70	22		✓			20	
WALNUT	0818-0054	0.32	0.83	31		✓		0.37	0.84	38		✓			18	
WEATHERED COPPER	0818-0019	0.32	0.83	31		✓		0.34	0.83	34		✓			11	
ZACTIQUE® II	0818-0004	0.35	0.75	32		✓		0.37	0.84	39		✓		✓	22	
ZINC GRAY	0818-0010	0.35	0.83	35		✓		0.37	0.85	39		✓		✓	20	

All ratings listed above are initial readings. Three year performance data is located on the CRRRC website and is based on CRRRC color families.

^A - Reflectivity data for Bare ZINCALUME is actual 3 year weathered solar reflectivity data.

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