



LEED ND: Built Project | v3 - LEED 2009



# Heat island reduction

GIBC9 | Possible 1 point

Glossary

## Intent

To reduce heat islands to minimize effects on the microclimate and human and wildlife habitat.

## Requirements

### Option 1. Nonroof measures

Use any combination of the following strategies for 50% of the nonroof site hardscape (including roads, sidewalks, courtyards, parking lots, parking structures, and driveways):

- a. Provide shade from open structures, such as those supporting solar photovoltaic panels, canopied walkways, and vine pergolas, all with a solar reflectance index (SRI) of at least 29.
- b. Use paving materials with an SRI of at least 29.
- c. Install an open-grid pavement system that is at least 50% pervious.
- d. Provide shade from tree canopy (within ten years of landscape installation).

### OR

### Option 2. High-reflectance and vegetated roofs

Use roofing materials that have an SRI equal to or greater than the values in Table 1 for a minimum of 75% of the roof area of all new buildings within the project; or install a vegetated ("green") roof for at least 50% of the roof area of all new buildings within the project. Combinations of SRI-compliant and vegetated roofs can be used provided they satisfy the equation in Option 3.

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

Roof slope	SRI
Low ( $\leq 2:12$ )	78
Steep ( $> 2:12$ )	29

### OR

### Option 3. Mixed nonroof and roof measures

Use any of the strategies listed under Options 1 and 2 that in combination meet the following criterion:

Area of Nonroof Measures ----- 0.5	+	Area of SRI Roof ----- 0.75	+	Area of Vegetated Roof ----- 0.5	≥	Total Site Hardscape Area	+	Total Roof Area
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