

## HOW TO SPECIFY FOR LEED™

This ready reference guide from ERA is for architects, consultants and roofing applicators. The following information is designed to enhance your USGBC LEED-NC understanding for applying EPDM to LEED roof specifications.

### LEED for New Construction and Major Renovation (LEED-NC)

#### CATEGORIES

There are six (6) categories to the LEED program:

CATEGORY	ABBREVIATION	POINTS
Sustainable Sites	SS	14
Water Efficiency	WE	5
Energy & Atmosphere	EA	17
Materials & Resource	MR	13
Indoor Environmental Quality	EQ	15
Innovation & Design Process	ID	5

#### POINT SYSTEM

There are seven (7) prerequisites that must be fulfilled, but for which no points are awarded:

CERTIFICATION LEVELS	POINTS
BASIC	26
SILVER	33
GOLD	39
PLATINUM	52
<b>Total Points Possible</b>	<b>69</b>

#### Nine (9) LEED factors that roofing is associated with:

- Stormwater Management
- Heat Island Effect: Roofing
- Optimized Energy Performance
- Construction Waste Management
- Resource Reuse
- Recycle Content
- Regional Materials
- Ozone Protection
- Low-Emitting Materials

#### FOR MORE INFORMATION, CONTACT:

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For case studies and more information on the benefits of EPDM Roofing at [www.epdmroofs.org](http://www.epdmroofs.org)

# HOW TO SPECIFY FOR LEED™

## TWO (2) FACTORS ROOFING DIRECTLY AFFECT

**SS Credit 6.1 Stormwater Management: Use garden roof 1pt**

- EPDM specifications are available

**SS Credit 7.2 Heat Island Effect: Roofing 1pt**

- Cool Roof
  - ENERGY STAR® listed product (.65 reflectivity – new, .50 @ 3-yrs)
  - Emissivity > .9 per test method ASTM E 408
  - Cool Roof must be a minimum 75% of the roof surface
  - ERA solution: White EPDM R=.84 E=.90
- Garden Roof
  - Garden Roof must be a minimum of 50% of the roof surface
  - EPDM systems can be used in this application

## FIVE (5) FACTORS ROOFING CONTRIBUTES TO

**1) EA Credit 1: Optimize Energy Performance**

*Building - This carries the most weight of any factor*

- Requirement – exceed ASHRAE 90.1 1999 or local code, which ever is more stringent, per the following:
  - New construction: 15 – 60% in 5% increments **1-10pts**
  - Existing buildings: 5 – 50% in 5% increments **1-10pts**

Credit deals with the energy usage of the building which is effected by the insulation R-value, climate zone, windows, doors, HVAC, etc.

**2) MR Credit 2: Construction Waste Management**

*Demolition/waste from site*

- 2.1 - Divert 50% from landfill **1pt**
- 2.2 - Divert 75% from landfill **2pts**

Redirect: Stone, insulation, EPDM NR<sup>1</sup> membrane and Recycle: NR EPDM from ballast or MF<sup>2</sup> systems

<sup>1</sup> Non-Reinforced

<sup>2</sup> Mechanically-Fastened

**3) MR Credit 3: Resource Reuse**

- 3.1 - 5% reused **1pt**
- 3.2 - 10% reused **2pts**

ERA solution: Reuse building materials: stone, insulation, NR-EPDM from ballasted jobs. Leave old roof in place, cover with new EPDM roof.

**4) MR Credit 4: Recycle Content**

*Whole building*

- 3.1 - 5% reused **1pt**
- 3.2 - 10% reused **2pts**

### Typical Roof System Components:

○ EPDM - no recycle content
○ Polyiso - 17 to 32% by thickness
○ XPS - min. 15% post-consumer
○ EPS - 30% post-industrial
○ WFB - 10% post-industrial

*(Check with each manufacturer for specifics.)*

**5) MR Credit 5: Regional Materials**

- 20% manufactured with 500 miles of site **1pt**
- EPDM manufacturing sites: Carlisle, PA; Greenville, IL; Kingston, TN; Kingstree, SC; Prescott, AR

## TWO (2) FACTORS ROOFING OFFERS THE SAME TECHNOLOGY BUT NO CREDIT

*However, these may be used to achieve an Innovation Credit.*

**1) EA Credit 4: Ozone Protection**

Reduce ozone depletion and support early compliance with the Montreal Protocol (HVAC, refrigeration equipment and fire suppression systems) by not using HCFC's and Halons.

- Polyiso Insulation - no CFCs or HCFCs

**2) EQ Credit 4.1: Low-Emitting Materials: Adhesives and Sealants**

- EPDM has a full line of coatings, adhesives and sealants that comply