

# Sto Products and LEED® Credits Summary



Sto Products and LEED NC v. 2.2	Potential Points
<b>Sustainable Sites (SS)</b>	
Credit 7.1: Heat Island Effect - Non-Roof	1
<b>Energy &amp; Atmosphere (EA)</b>	
Prerequisite 2: Minimum Energy Performance	2 (req'd)
Credit 1: Optimize Energy Performance	10 (2 req'd)
<b>Materials &amp; Resources (MR)</b>	
Credit 1.1 / 1.2: Building Reuse - 75% / 95%	1 / 2
Credit 2.1 / 2.2: Construction Waste Management - 50% / 75%	1 / 2
Credit 4.1 / 4.2: Recycled Content - 10% / 20%	1 / 2
Credit 5.1 / 5.2: Regional Materials - 10% / 20%	1 / 2
<b>Indoor Environmental Quality (EQ)</b>	
Credit 4.2: Low Emitting Materials - Paints and Coatings	1
<b>Innovation In Design (ID)</b>	
Credit 1.1- 1.4: Innovation in Design	4



## Sustainable Sites Credit 7.1

### Heat Island Effect - Non-Roof

#### Credit Intent

This credit is intended to reduce the heat island effect (developed areas that absorb and hold heat) caused by site hardscapes such as roads, parking lots, walkways, sidewalks and courtyards.



#### Potential Solutions using Sto Products

Light colored paving surfaces with a Solar Reflectance Index (SRI) value of at least 29 comply with this LEED requirement.

Sto offers several coatings that are designed for use on horizontal surfaces such as walkways, driveways, courtyards and parking decks. These coatings generally can be ordered in a variety of colors\* that will comply with the LEED requirement of SRI greater than 29.

Sto Products typically used in these types of applications include:

- ▶ Sto Texture Coat - 510 (with topcoat of 648)
- ▶ StoCoat™ Acryl Plus - 648
- ▶ Sto Decocoat - 119 (w/ topcoat sealer)
- ▶ StoPur™ Traffic Deck Coating System - CR675/676/679

\*Note: Sto's color charts list the % Light Reflectance Value (LRV) of each color. This value (divided by 100) may be used to calculate the SRI for a given color.



## Energy & Atmosphere Prerequisite 2 and Credit 1 Optimize Energy Performance

### Credit Intent

This credit is intended to encourage building design strategies that improve the energy performance of the building over the baseline performance rating specified by ASHRAE/IESNA Standard 90.1-2004. Performance improvement is calculated in terms of % energy cost savings over baseline. A savings of 42% earns 10 LEED credits.



### Potential Solutions using Sto Products

An airtight, well-insulated building enclosure has a significant effect on the energy consumption of a building. A 2005 National Institute of Standards and Technology study showed that use of a structural air barrier can reduce energy consumption of a building by up to 40%. In addition, the overall energy performance of a building and its interior environment can be greatly improved by placing the insulation on the outside of the building, thus minimizing thermal bridging across the structural elements of the wall construction.

StoTherm™ NExT EIFS systems feature both the StoGuard™ waterproofing/air barrier assembly and a protective blanket of exterior insulation, providing both energy savings and protection from moisture intrusion in a cost effective cladding. A broad range of R-Values can be attained by using EPS in varying thickness from 3/4" to 4" (19-101mm) Sto Products typically used in these types of applications include:

- ▶ StoTherm™ Premier NExT
- ▶ StoTherm™ Classic NExT
- ▶ StoTherm™ Essence NExT
- ▶ StoGuard™ Waterproofing Air Barrier



## Materials & Resources Credits 1.1 & 1.2

Building Reuse - Maintain 75% of Existing Walls, Floors & Roof

Building Reuse - Maintain 95% of Existing Walls, Floors & Roof

### Credit Intent

This credit is intended to promote reuse of existing building stock, thus extending its life while conserving resources, reducing waste, and reducing the environmental impacts caused by manufacturing and transporting new materials.



### Potential Solutions using Sto Products

Recoating an existing building or applying a new insulated wall cladding over the existing cladding are both strategies that can be used to repair, protect, and provide an updated aesthetic design to the structure.

Sto's offers coatings, waterproofing materials, repair mortars and surface preparation products that can be used to restore surfaces of many types, including masonry, cement block, and even painted surfaces. For a more extensive makeover, StoTherm™ Insulated Wall Claddings can also be applied over most surfaces, providing a new look with the added benefit of increased energy efficiency.

Sto Products typically used in these types of applications include:

#### Coatings:

- ▶ StoCoat™ Lotusan® - 216 - Self cleaning paint
- ▶ Sto Acrylic and Elastomeric Coatings

#### Waterproofing Products:

- ▶ StoGuard waterproofing / air barrier
- ▶ Sto Hydrotight - 206
- ▶ Sto Watertight Coat - CR241

#### Repair Mortars

- ▶ Sto Skim Coat - CR216
- ▶ Sto Leveler - 244
- ▶ Sto Overhead Mortar - CR702CI
- ▶ StoPatch Repair Mortar - CR211

#### Surface Preparation

- ▶ StoPrep - Coating removers
- ▶ Sto Primers - 801/804

In addition, the Sto reStore program was developed specifically to help building owners with the renovation of their building façade. A collaborative program managed by the Sto Strategic Accounts team, reStore links building owners with capable restoration and repair contractors and Sto's products and services. For more information about the reStore program, contact Sto Strategic Accounts at 1-888-786-3437.



### Materials & Resources Credits 2.1 & 2.2

Construction Waste Management - Divert 50% From Disposal  
Construction Waste Management - Divert 75% From Disposal

#### Credit Intent

This credit is intended to minimize the amount of construction, demolition and land clearing debris that goes to a landfill or incinerator by recycling and /or salvaging the debris for future use.



#### Potential Solutions using Sto Products

Sto's products are packaged in bags or pails that can typically be recycled through traditional waste management programs. In addition, the use of a StoSilo for application of base coats or leveler means that the material can be delivered in bulk, and mixed on-demand, reducing both packaging and leftover material waste.



### Materials & Resources Credits 4.1 & 4.2

Recycled Content 10% (Post-Consumer + 1/2 Pre-Consumer)  
Recycled Content 20% (Post-Consumer + 1/2 Pre-Consumer)

#### Credit Intent

Products that incorporate recycled materials reduce the environmental impacts that result from extracting and processing virgin materials.



#### Potential Solutions using Sto Products

StoTherm EIFS systems and StoGuard assemblies both contain products which have recycled content.

Product Name	Recycled content (% by weight)	
	Pre-Consumer	Post-Consumer
<a href="#">Sto BTS Plus - 727</a>	2.75%	0
<a href="#">Sto BTS Silo - 727Silo</a>	3.00%	0
<a href="#">Sto Gold Coat - 265</a>	2.75%	0
<a href="#">Sto EmeraldCoat - 264</a>	2.75%	0



## Materials & Resources Credits 5.1 & 5.2

Regional Materials - 10% Extracted, Processed & Manufactured Regionally  
Regional Materials - 20% Extracted, Processed & Manufactured Regionally

### Credit Intent

Encourage use of materials that are extracted and manufactured regionally, within 500 miles of the project location, thus reducing environmental impact caused by transportation of materials.



### Potential Solutions using Sto Products

Sto operates 3 manufacturing plants located in the Southeast, Northeast, and Southwest to meet regional demand of much of our market. Typically, between 20 and 80% of the raw material volume by weight is extracted locally to our manufacturing plants. Contribution of Sto products toward these credits is determined by the project location.

Sto Manufacturing Plant Locations:

- Atlanta, GA 30331
- Rutland, VT 05701
- Glendale, AZ 85301



## Indoor Environmental Quality Credit 4.2

Low-Emitting Materials: Paints and Coatings

### Credit Intent

Reduce indoor air contaminants that can be harmful to occupants and installers.



### Potential Solutions using Sto Products

Paints, coatings and primers with Volatile Organic Compound (VOC) content\* that is less than 50 g/L comply with this LEED requirement.

Most Sto coatings and finishes meet this criteria:

▶ [Sto Products - VOC Content](#) (available on [www.stocorp.com](http://www.stocorp.com))

\* VOC Content calculation method is less water and exempt solids.



## Innovation in Design Credits 1.1 - 1.4

### Innovation in Design

#### **Credit Intent**

To allow additional points to be awarded for exceptional performance above the LEED NC requirements, or for innovative performance in Green Building categories not addressed by the LEED NC rating system.



#### **Potential Solutions using Sto Products**

##### StoCoat™ Lotusan® Exterior Coating

StoCoat Lotusan coating has the unique Lotus-*Effect*®, a self-cleaning property that enables dirt to be washed off with rain. This exterior coating can reduce the amount of cleansers and water required to keep the building clean. It also has an extended service life compared to traditional coatings, meaning fewer recoats over the life of the building.

##### Lightweight claddings

StoTherm EIFS claddings, and thin coat StoPowerwall™ Stucco are lighter than traditional brick claddings, and thus reduce the structural requirements of the building. Use of these types of claddings can reduce the amount of structural components such as steel required in the project design.

Sto Corp. Technical Paper - Steel Cost Study (available on [www.stocorp.com](http://www.stocorp.com))



#### **For More Information about LEED**

Sto has a LEED Accredited Professional on staff to help you with all of your questions regarding Sto Products and LEED. Contact Sto at 1-800-221-2397 x3284 for assistance.