Recycled Content

LEED 2009 – MRc4, LEEDv4 – Environmental Product Declarations, Opt. 2

Requirements LEED 2009

Use materials with recycled content[1] such that the sum of postconsumer[2] recycled content plus ½ of the preconsumer[3] content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. The minimum percentage materials recycled for each point threshold is as follows:

Recycled Content	Points
10%	1
20%	2

The recycled content value of a material assembly is determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine recycled content value.

Requirements LEED v4

Use products that comply with one of the criteria before for 50%, by cost, of the total value of permanently installed products in the project. Products will be valued as below.

- Third party certified products that demonstrate impact reduction below industry average in at least three of the following categories are valued at 100% of their cost for credit achievement calculations.
    - Global warming potential (greenhouse gases), in CO2e;
    - Depletion of stratospheric ozone layer, in kg CFC-11;
    - Acidification of land and water sources, in moles H+ or kg SO2;
    - Eutrophication, in kg nitrogen or kg phosphate;
    - Formation of tropospheric ozone, in kg NOx, kg O3eq, or kg ethane; and
    - Depletion of nonrenewable energy resources, in MJ.
- USGBC approved program – Products that comply with other USGBC approved multi-attribute frameworks.

Recycled Content

For credit achievement calculation, products sourced (extracted, manufactured, purchased) within 100 miles (160 km) of the project site are valued at 200% of their base contributing cost.

Material	Manufacturer	Weight of Material	Weight of Post Consumer Recycled Content (lbs)	Post Consumer Recycled Content (percent)	Weight of Pre-Consumer/Post Industrial Recycled Content (lbs)	Pre-Consumer/Post Industrial Recycled Content (percent)
A1200 Single Glazed 0-9lb Recycled Content Calculator						
1 5x9 piece of glass	Trulite Glass	247.5	0	0.00%	173.25	70%
2 Single Glazed Base Channel	Solite Systems	1.6	0.4	25.00%	0.4	25%
3 Single Glazed Head Channel	Solite Systems	1.6	0.4	25.00%	0.4	25%
4 H-Channel	Solite Systems	0.4	0.1	25.00%	0.1	25%
5 Hardware	CR Laurence	5.0	0.5	10.00%	0.5	10%
Totals:		256.1	1.4		174.65	
Percent Recycled Content According to LEED						**35%**

Figure 1: 0-9 lbs of hardware single glazed 5x9 ft segment

Material	Manufacturer	Weight of Material	Weight of Post Consumer Recycled Content (lbs)	Post Consumer Recycled Content (percent)	Weight of Pre-Consumer/Post Industrial Recycled Content (lbs)	Pre-Consumer/Post Industrial Recycled Content (percent)
A2200 Double Glazed 0-9lb Recycled Content Calculator						
1 (2) 5x9 pieces of glass	Trulite Glass	495.0	0	0.00%	346.5	70%
2 Double Glazed Base Channel	Solite Systems	4.2	1.05	25.00%	1.05	25%
3 Double Glazed Head Channel	Solite Systems	4.2	1.05	25.00%	1.05	25%
4 H-Channel	Solite Systems	0.4	0.1	25.00%	0.1	25%
5 Hardware	CR Laurence	5.0	0.5	10.00%	0.5	10%
Totals:		508.8	2.7		349.20	
Percent Recycled Content According to LEED						**35%**

Figure 2: 0-9 lbs of hardware double glazed 5x9 ft segment

Recycled Content

Single Glazed 10-25lb Recycled Content Calculator						
Material	**Manufacturer**	**Weight of Material**	**Weight of Post Consumer Recycled Content (lbs)**	**Post Consumer Recycled Content (percent)**	**Weight of Pre-Consumer/Post Industrial Recycled Content (lbs)**	**Pre-Consumer/Post Industrial Recycled Content (percent)**
1 (2) 5x9 pieces of glass	Trulite Glass	247.5	0	0.00%	173.25	70%
2 A1200 Single Glazed Channel	Solite Systems	1.6	0.4	25.00%	0.4	25%
3 A1200 Single Glazed Channel	Solite Systems	1.6	0.4	25.00%	0.4	25%
4 H-Channel	Solite Systems	0.4	0.1	25.00%	0.1	25%
5 Hardware	CR Laurence	17.5	1.75	10.00%	1.75	10%
Totals:		268.6	2.65		1.75.9	
Percent Recycled Content According to LEED						**34%**

Figure 3: 10-25 lbs of hardware single glazed 5x9 ft segment

Double Glazed 10-25lb Recycled Content Calculator						
Material	**Manufacturer**	**Weight of Material**	**Weight of Post Consumer Recycled Content (lbs)**	**Post Consumer Recycled Content (percent)**	**Weight of Pre-Consumer/Post Industrial Recycled Content (lbs)**	**Pre-Consumer/Post Industrial Recycled Content (percent)**
1 (2) 5x9 pieces of glass	Trulite Glass	495.0	0	0.00%	346.5	70%
2 A2200 Double Glazed Base Channel	Solite Systems	4.2	1.05	25.00%	1.05	25%
3 A2200 Double Glazed Head Channel	Solite Systems	4.2	1.05	25.00%	1.05	25%
4 H-Channel	Solite Systems	0.4	0.1	25.00%	0.1	25%
5 Hardware	CR Laurence	17.5	1.75	10.00%	1.75	10%
Totals:		508.8	2.7		349.20	
Percent Recycled Content According to LEED						**34%**

Figure 4: 10-25 lbs of hardware double glazed 5x9 ft segment

Recycled Content

Figures 1-4 show recycled content calculations done for 5ft x 9ft glass partitions. They both have A1200 single glazed or A2200 double glazed channels and different amounts of hardware but their recycled content only varies slightly. This example is scalable to any of Solite System's specific solutions by taking the square feet of glass for a specific project and diving it by 45. This will give a pounds per square feet value which can be multiplied by the square feet of glass for an amount of glass. Provided are two ranges of hardware weight 0-9lbs and 10-25lbs. Most of Solite System's products and solutions will fall into one of these two ranges. As the glass is overwhelmingly dominant by weight in all Solite System's products, the recycled content will always be around 35%.

[1] Recycled Content is defined in accordance with the International Organization of Standards document, ISO 14021-Environmenal labels and declarations – Self-declared environmental claims (Type II environmental labeling).

[2] Postconsumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

[3] Pre-consumer material defined as material diverted from the waste stream during the manufacturing process. Reutilization of materials (i.e., rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it) is excluded.