



- *The Commissioning of Butler's components would be performed by the LEED Professional; It starts with a review the design details of seams, other connection points, flashing of openings, weather-tightness, etc.*
- *The Building materials that Butler would normally supply on a project will be a minor part of the overall LEED rating of the project, but when combined with other components of the building they may contribute to LEED credits.*
- *LEED® credit can be earned under the Recycled Content categories MR 4.1 and 4.2 for using a high percentage of recycled building materials.*

Butler Manufacturing is a member of the U.S. Green Building Council. The following points explain how Butler products contribute to how “green” a project is:

1 PRODUCTS THAT REDUCE MATERIAL USE

Through extensive testing and computer modeling, all Butler projects are designed to minimize the amount of steel used to meet the specifications. Primary framing is fabricated per order using tapered sections and built up shapes to reduce steel content. This compares favorably to other steel or wood structures that use and often underutilize pre-defined shapes or sections. The lighter weight structure also reduces the size of footings and foundations reducing the concrete and steel used. Minimizing the steel and concrete used in a building conserves our natural resources.

2 SALVAGED/RECYCLED PRODUCTS

Nearly all of the steel used to make the primary frames is made from recycled scrap generated from both consumer and industrial users. On a weighted average this accounts for roughly half of the steel used in a typical building. See Recycled Content topic.

3 REUSABLE OR RECYCLEABLE MATERIALS

Metal buildings can be relocated and reused making them adaptable to different end uses and extending their usable life. Steel from buildings can also be 100% recycled and used for new buildings or a variety of other uses.

BUTLER MANUFACTURING LEED INFORMATION

EXAMPLE FOR ITEMS 2 & 3 ABOVE:

The following are the various percentages of preconsumer and postconsumer content of each building component. These percentages must be applied to the contract selling price of that particular component. **(price will come from DSB)**

- MR 4.1 & 4.2 Recycled Content (1 & 2 Credits)
- MR 4.1 -10% Recycled content (postconsumer + one half of the preconsumer)
- MR 4.2 -20% Recycled content (postconsumer + one half of the preconsumer)

Component	Total recycled content (%)	Postconsumer (%)	Preconsumer (%)
Frames	74.6	48.4	26.2
Secondary Structural	70.0	65.0	5.0
Roof Panels	20	5	15
Wall Panels	20	5	15

Below is chart showing recycled content per facility: **(Steel is coming out of Rainseville; Panels are coming out of Jackson.)**

Rainseville	Commodities	% Post-Consumer Average	% Pre-Consumer/Post-Industrial Average	% Total Recycled Content Average
Frames	web,bar	35.4%	23.2%	58.6%
Secondaries	Acrylic Galv, Bare HR	39.7%	38.7%	78.4%
Sheeting	G30 HRGPainted Galv/lume	3.0%	1.0%	4.0%
Sheeting	Galvalume	5.0%	1.6%	6.6%
Bracing	rod	81.1%	16.6%	97.7%
Other (Mill)	wide flange, angle	72.1%	10.8%	82.9%

Jackson	Commodities	% Post-Consumer Average	% Pre-Consumer/Post-Industrial Average	% Total Recycled Content Average
Frames	web,bar	n/a	n/a	n/a
Secondaries	Acrylic Galv	38.3%	37.2%	75.4%
Sheeting	G30 HRGPainted Galv/lume	4.1%	2.3%	6.3%
Sheeting	Galvalume	16.0%	16.3%	31.2%
Bracing	rod	81.1%	16.6%	97.7%
Other (Mill)	wide flange, angle	72.1%	10.8%	82.9%

4 LIFE CYCLE

Butler's metal building systems have been in existence for over 50 years. Most of today's metal cladding products carry a 25-year warranty and require minimal maintenance to last much longer. Properly protected primary and secondary framing members can last indefinitely. This compares exceptionally well with other building materials. Steel is naturally termite and rodent resistant and requires no pesticides or treatment for protection.

5 EPA REGULATIONS

Butler uses only structural finishes that meet or exceed current EPA regulations and uses low VOC paints, caulks and adhesives. Metal building products do not release pollutants like certain wood products or built up roof products.

6 TRANSPORTATION ENERGY COSTS

Our eight regionally located fabrication plants assure that production is close to most building sites reducing transportation energy costs.

7 ENERGY EFFICIENT

Butler has tested and offers a wide variety of insulation systems and an insulation thermal spacer block that significantly improves the in place performance of the roof insulation. Testing was performed to assure performance in lieu of using empirical formulae. We offer insulation systems that can achieve R-40 or more when required. **We are using U=0.039 for roof design and U=0.0654 for wall design R26/R14.44**

8 HEAT ISLAND EFFECT

By using cool metal roofing (cool roofs) the heat island effect is reduced, which minimizes the impact on microclimate and human and wildlife habitats. **We are using solar white as our roof color**

ROOF FINISHES, BUTLERIB® II, MR-24®, VSR II™ AND CMR-24® ROOF SYSTEMS

HEAT ISLAND EFFECT – ROOF – (2 POINTS)

The table below gives the SRI of Butler roof finishes and indicates which ones meet the LEED requirements for the credits according to roof slope.

Roof Material/Color	Reflectance	Emittance	SRI	Low Slope	Steep Slope
Cool Solar White (MR-24®)	71.7	0.85	87	Yes	Yes
Cool Solar White (other roof systems)	74.9	0.84	91	Yes	Yes
Cool Igloo White	62.4	0.87	74	No	Yes
Cool Ivory White	62.3	0.85	74	No	Yes
Cool Birch White	63.7	0.85	75	No	Yes
Cool Shell Gray	55.1	0.84	63	No	Yes
Cool Country Wheat	60.3	0.84	71	No	Yes
Cool Desert Beige	49.0	0.85	55	No	Yes
Cool Gray Stone	37.1	0.85	39	No	Yes

Heat Island Effect – Roof

- Low slope (less than or equal to 2:12), SRI of 82 or greater
- Steep slope (greater than 2:12), SRI of 39 or greater