

## How to Correctly Calculate LEED 2009 *Materials & Resources Credit 4 – Recycled Content*

The Leadership in Energy and Environmental Design (LEED 2009) Green Building Rating System includes credits for “Recycled Content”. These LEED credits are referenced in the category ***Materials & Resources (MR) Credit 4 - Recycled Content***. To quote LEED directly...“One point is awarded when the materials used have recycled content such that the sum of post-consumer recycled content and half the pre-consumer recycled content constitute 10% of the total value of the materials used in the development. An additional point is awarded when post-consumer plus half the pre-consumer recycled content represents 20% of the cost of materials used”.

The thresholds of 10% and 20% for the project can be based on virtually all materials used. Under the LEED 2009 formula, there is a weighted average based on the type of recycled content. Post-consumer counts for full % value and pre-consumer (post-industrial) counts for half the % value in the calculation. The LEED 2009 recycled content formula is below...

$$\text{Recycled Content \$ Contribution} = (\% \text{ post-consumer} \times \$ \text{ product cost}) + (1/2 (\% \text{ pre-consumer} \times \$ \text{ product cost}))$$

So, for example, say product A costs \$100 dollars and is composed of 10% post-consumer content and 30% pre-consumer content. The value for ***MR Credit 4 - Recycled Content*** would be calculated as follows...

$(10\% \times \$100) + (1/2 (30\% \times \$100)) =$  a \$25 ***MR Credit 4 - Recycled Content*** contribution for the thresholds of 10% and 20%, based on the total project.

### How Do Steelscape Products Impact ***MR Credit 4 – Recycled Content?***

In Steelscape’s manufacturing process, the raw material from which we produce our products is hot band steel coil. Therefore, the recycled content of our steel products is directly related to the recycled content of the hot band steel coil we utilize.

**STANDARD HOT BAND:** Currently, Steelscape’s main hot band suppliers, which provide our “**standard**” hot band, use a basic oxygen furnace (BOF) process. Unless a customer specifies otherwise at time of order quote and order entry, this **standard** hot band is applied to all orders. As the amount of recycled content in BOF hot band steel varies by producer, the specific recycled content within our products utilizing **standard** hot band will vary. In addition, as most of our **standard** hot band suppliers do not track recycled content utilized within their own manufacturing processes, the exact percentages of recycled content within our products manufactured utilizing **standard** hot band are not available.

**HIGH-RECYCLED CONTENT HOT BAND:** Steelscape does have the ability to utilize a higher recycled content hot band steel upon request. This “**high-recycled content**” hot band steel may contain 50-75% recycled content in total. On average, the pre-consumer portion accounts

for 20-35%, the post-consumer portion accounts for 30-40%, and the remaining portion represents “reutilized” materials. Steelscape products utilizing **high-recycled content** hot band may be available upon request and must be specified at the time of order quote and order entry. Please inquire with your Steelscape Sales Representative.

**In accordance with the USGBC LEED 2009...”For steel products where no recycled content information is available, assume the recycled content to be 25% post-consumer. No other material has been recognized as having a similarly consistent minimum recycled content.”**

Therefore, the default recycled content for Steelscape products utilizing **standard** hot band is 25% post-consumer when calculating **LEED MR Credit 4 - Recycled Content**.

**Please note that products do not need to meet the LEED MR Credit 4 - Recycled Content thresholds on their own. It is a calculation that takes into account the recycled content and cost for each applicable product, can include virtually all materials used in the project, and is based on the total project cost.**

Chart from USGBC website:

### Allow time for documentation

Documenting this credit can take time, since cost and exact percentages of post- and pre-consumer materials must be collected for each recycled item used.

LEED requires the base materials budget to be consistent across all MR credits. The LEED Online credit forms help provide consistency across MR credits by applying the same data to multiple

