Recycled aluminum content and LEED requirements as they relate to extrusion components for the EVO™ and FUSION™ panel systems

The EVO™ RIVETLESS™ and FUSION™ DRILLFREE™ extrusion profiles, protected under patent, are designed exclusively for use in the Carter Architectural exterior wall panel systems. Through our research and design phase we found significant advantageous physical properties for using 6061 T6 Aluminum Alloy. 6061 is greatly beneficial for LEED requirements due to its high recyclable content and sustainability. Additionally, greater strength/rigidity of components will result from this alloy, versus others. It is important to note that our industry standard is 6063, yet Carter has selected 6061, to raise the bar on quality.

The chart below demonstrates the findings for Aluminum Alloy 6061-T6 for our perimeter extrusions, starter and clip components, based on our specification for manufacturing and the North American mill production. "Our commitment to sustainable solutions begins with the metal we use in our manufacturing processes. Aluminum is fully and repeatedly recyclable material. Aluminum has significant scrap value, making it not only environmentally friendly, but cost-effective as well. Recycled aluminum requires only five percent of the energy necessary, to produce virgin aluminum."[1]

The percentage of recycled content in alloy grades can differ from batch-to-batch, but must be within the acceptable range.

Aluminum – Alloy	Recycled Content	Post-Industrial Press	Scrap Post-Consumer
6005A	60 - 75%	55 - 70%	5 - 10%
6063	30 - 50%	45 - 70%	5 - 10%
6061	**45 - 90%**	**40 - 85%**	**5 - 15%**

The scrap percentages comply with the LEED requirements for recycled content (MR Credits 4.1 and 4.2) and ISO 14021 – 'Environmental Labels and Declarations', where the recycled aluminum content is greater than 50 percent.[2]

"Changing the Standard by Design"

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½ Sapa Extrusions, Inc., is a manufacturer of aluminum extruded profiles throughout North America.