

Manufacturer **GEZE GmbH**



Product Name **Powerchain**

Product Rating

- The product contains 10% recycled materials and contribute to achieve LEED credits within MR Credit 4.

Indoor Environmental Quality (IEQ) - LEED Category

IEQ Credit 4.1: Low Emitting Materials: Adhesives and Sealants	1 Point	<input type="radio"/>
IEQ Credit 4.2: Low Emitting Materials: Paints and Coatings	1 Point	<input type="radio"/>
IEQ Credit 4.3: Low Emitting Materials: Flooring Systems	1 Point	<input type="radio"/>
IEQ Credit 4.4: Low Emitting Materials: Composite Wood and Agrifiber Products	1 Point	<input type="radio"/>

Materials and Resources (MR) - LEED Category

MR Credit 4: Recycled Content	1-2 Points	10%
MR Credit 5: Regional Materials	1-2 Points	See Location
MR Credit 6: Rapidly Renewable Materials	1 Point	<input type="radio"/>
MR Credit 7: Certified Wood	1 Point	<input type="radio"/>

Product Characteristics

Electric chain drive for a smoke and heat extraction system for daily aeration and ventilation and safe and fast smoke and heat exhaust and smoke extraction on vertically or angled installed, inward and outward opening bottom-hung, top-hung, and side-hung casements as well as for light domes and skylights. Direct opener in 24 V version. The drive is actuated via a micro-processor. The drive is equipped with electronic end position cut-off and overload protection and has electronically regulated soft start and soft stop. Synchronised multiple operation of up to 3 drives must be guaranteed without additional external module. Activation and adjustment of the synchro function is by means of integrated DIP switches without additional programming being necessary. Stroke: 600/800 and 1200 mm Tensile force/pressure: 600 N/max. 600 N, stroke-dependent Voltage: 24 V DC / 230 V with external mains adapter The GEZE chain drive Powerchain is suitable for installation in tested and certified GEZE SHEVs in accordance with EN 12101-2.

About LEED & Products - www.usgbc.org

This declaration helps to assess products easily according the certification system LEED® 2009 New Construction and Major Renovations NC & CS (excluded SCHOOLS). Products are not reviewed or certified by LEED. LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information about LEED visit www.usgbc.org/leed. The project team or the manufacturer is responsible to declare the compliance with the project requirements to achieve LEED points.

Below you find an explanation of the symbols. Detailed information are on the next pages.

- Credit requirements fulfilled - the credit point can be achieved**
- Credit is not applicable to this product**
- 22%** **X% of the product comply with the credit requirement**
- Required data not specified - for required data contact manufacturer**
- Credit requirements are not fulfilled**

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No	Product Name	Manufacturer	Mass per unit* [%]	VOC in g/l	VOC-Limit in g/l	Flooring Systems	Composite Agrifiber product	Recycled Content		Regional Materials		Rapidly Renewable Material	Certified Wood
								Post-Consumer	Pre-Consumer	Location Harvesting/ Extraction	Location Manufacturing		
A1	Steel parts	GEZE GmbH	~ 40%	N/A	N/A	N/A	N/A	25%**	0%	Not specified	Not specified	N/A	N/A
A2	Aluminium	GEZE GmbH	~ 16.1%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A3	Copper	GEZE GmbH	~ 3.7%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A4	Zinc die-cast	GEZE GmbH	~ 35%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A5	Plastics	GEZE GmbH	~ 5.3%	N/A	N/A	N/A	N/A	Not specified	Not specified	Not specified	Not specified	N/A	N/A
A6													
A7													
A8													
A9													
A10													
	Powerchain	GEZE GmbH	100.0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	10.0%	—	If the location of 'Harvesting & Extraction' and 'Manufacturing' is within a radius of 500 miles of the project the subproduct contributes to the credit.		<input type="radio"/>	<input type="radio"/>

*All values are based on the unit:1 element **LEED default recycled content for steel

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MR Credit 4: Recycled Content (1-2 Points)

Intent

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Requirement

Use materials with recycled content* such that the sum of post-consumer** recycled content plus one-half of the pre-consumer*** content constitutes at least 10%/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:

- 10% Recycled Content -> 1 Point
- 20% Recycled Content -> 2 Points.

* Recycled content is defined in accordance with the International Organization of Standards document, ISO 14021 — Environmental labels and declarations — Self-declared environmental claims (Type II environmental labeling).

** 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.

*** Preconsumer material is 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.

Detailed Rating

No	Product Name	Manufacturer	Recycled Content		Contribution of Product	
			Post-Consumer	Pre-Consumer		
A1	Steel parts	GEZE GmbH	25%**	0%	Accountable recycled content according to LEED is 25% (1 x Post-Consumer + 0.5 x Pre-Consumer). **1 LEED default recycled content for steel	25%
A2	Aluminium	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A3	Copper	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A4	Zinc die-cast	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—
A5	Plastics	GEZE GmbH	Not specified	Not specified	No recycled content specified.	—

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Product Name **Powerchain**

MR Credit 5: Regional Materials (1-2 Points)

Intent

To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

Requirement

Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value. If only a fraction of a product or material is extracted, harvested, or recovered and manufactured locally, then only that percentage (by weight) must contribute to the regional value. The minimum percentage regional materials for each point threshold is as follows:

- 10% Regional Materials -> 1 Point
- 20% Regional Materials -> 2 Points.

Detailed Rating

No	Product Name	Manufacturer	Location Harvesting/ Extraction	Location Manufacturing
A1	Steel parts	GEZE GmbH	Not specified	Not specified
A2	Aluminium	GEZE GmbH	Not specified	Not specified
A3	Copper	GEZE GmbH	Not specified	Not specified
A4	Zinc die-cast	GEZE GmbH	Not specified	Not specified
A5	Plastics	GEZE GmbH	Not specified	Not specified