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Re: Recycled Materials Content for FERO Ties

To Whom It May Concern,

FERO Corporation recognizes the impact that building projects have on our natural environment and is committed to developing environmentally conscious products. FERO supports efforts made by the building industry in promoting green construction, including the Leadership in Energy and Environmental Design ratings system. FERO's masonry ties are predominantly comprised of recycled materials, and we provide the detailed information set forth below to assist you with your LEED certification.

The steel we use is comprised of 94.4% recycled material (87.6% post-consumer recycled content and 6.8% pre-consumer content), as provided by our suppliers in Schedule "A" hereto. The steel is shipped to us by truck from steel mills in Seattle, Washington and Ghent, Kentucky.

Any plastic used in our products is 100% post-consumer recycled material. Our shipping pallets are second-hand and 100% recycled and our shipping boxes are made from 100% recycled cardboard.

All FERO products are manufactured in Edmonton, Alberta, Canada and are shipped from our manufacturing facility by truck.

Should you require any further information please do not hesitate to contact FERO.

Sincerely,

FERO CORPORATION

Per: Michael Hatzinikolas, P.Eng., Ph.D., F.C.S.C.E



Bar Mill Group – The Nucor Bar Mill Group produces rebar, angles, flats, rounds and other miscellaneous structural and non-structural shapes.

2017 Approximate Recycled Steel Content Of All Nucor Bar Mill Group Products				
Facility	Total Scrap Steel Used	Total Alloys and Other Iron Units	Total Post-Consumer Recycled Content	Total Pre-Consumer Recycled Content
Auburn, NY	96.7%	0.2%	74.4%	22.3%
Birmingham, AL	96.1%	0.6%	85.2%	10.9%
Jackson, MS	96.8%	0.2%	86.8%	9.9%
Jewett, TX	94.2%	2.4%	78.4%	15.8%
Kankakee, IL	96.7%	0.2%	64.8%	32.0%
Kingman, AZ	99.7%	0.2%	92.3%	7.4%
Marion, OH	96.6%	0.2%	80.8%	15.8%
Plymouth, UT	96.8%	0.2%	94.6%	2.2%
Seattle, WA	95.8%	0.2%	90.3%	5.4%
Wallingford, CT	67.2%	32.8%	52.2%	14.9%

Engineered Bar Products Group – The Nucor Engineered Bar Mill Products Group produces angles, flats, rounds and other miscellaneous shapes.

2017 Approx. Recycled Steel Content Of All Nucor Engineered Bar Products Group				
Facility	Total Scrap Steel Used	Total Alloys and Other Iron Units	Total Post-Consumer Recycled Content	Total Pre-Consumer Recycled Content
Darlington, SC	87.1%	10.0%	57.7%	29.4%
Memphis, TN	79.6%	17.4%	55.0%	24.6%
Norfolk, NE	92.9%	3.6%	62.0%	31.0%

Sheet Mill Group – The Nucor Sheet Mill Group produces hot band, cold rolled, pickled and galvanized products. Nucor Sheet mills use varying amounts of recycled materials depending on metallurgical product demands and market conditions.

2017 Approximate Recycled Steel Content Of Nucor Sheet Mill Group Products				
Facility	Total Scrap Steel Used	Total Alloys and Other Iron Units	Total Post-Consumer Recycled Content	Total Pre-Consumer Recycled Content
Crawfordsville, IN	74.5%	21.5%	27.1%	47.4%
Hickman, AR	58.6%	40.8%	37.6%	21.0%
Berkeley, SC	40.0%	58.0%	29.8%	10.2%
Decatur, AL	61.6%	36.4%	27.2%	34.4%
Gallatin, KY	66.9%	31.6%	28.2%	38.8%
Nucor Castrip® Blytheville, AR	97.5%	3.1%	93.0%	4.4%
Nucor Castrip® Crawfordsville, IN	74.5%	21.5%	27.1%	47.4%

Plate Mill Group – Nucor Plate mills produce a variety of plate products in a wide range of sizes. Nucor Plate mills use varying amounts of recycled materials based on metallurgical and market demands.

2017 Approximate Recycled Steel Content of Plate Mill Products				
Facility	Total Scrap Steel Used	Total Alloys and Other Iron Units	Total Post-Consumer Recycled Content	Total Pre-Consumer Recycled Content
Hertford County, NC	67.1%	25.4%	57.0%	10.1%
Tuscaloosa, AL	56.6%	37.6%	31.6%	25.0%
Longview, TX	96.0%	0.2%	91.1%	4.9%

Beam Mill Group – Nucor Beam mills produce narrow and wide flange structural beams, channel, angle and other structural products. Nucor Steel Berkeley uses a higher percentage of non-scrap iron due to metallurgical product demands for sheet steel produced using the same EAF's.

2017 Approximate Recycled Steel Content of Beam Mill Products				
Facility	Total Scrap Steel Used	Total Alloys and Other Iron Units	Total Post-Consumer Recycled Content	Total Pre-Consumer Recycled Content
Nucor Yamato Steel, Blytheville, AR	97.5%	3.1%	93.0%	4.4%
Nucor Berkeley, Huger, SC	38.2%	57.5%	28.6%	9.6%

LEED v4 Information

Nucor can provide a variety of documentation to help projects satisfy LEED v4 credit requirements. Nucor publishes a Corporate Sustainability Report bi-annually which can be found here - <http://nucor.com/responsibility/sustainability/performance/>.

We continue to develop product-specific Environmental Product Declarations and Health Product Declarations for a variety of product groups. Nucor has participated in multiple industry-wide Environmental Product Declarations which can be used for Nucor products. Additionally Nucor will work individually with any customer requiring product life cycle inventory data or other environmental footprint information.

Additional LEED and/or other environmental information regarding specific Nucor Corporation products for a customer's specific order is available from facility representatives or the corporate office. A current contact list can be found here - http://nucor.com/media/Nucor_LEED_CONTACTS.pdf.

Additional industry information is available online through the Steel Recycling Institute at <http://www.recycle-steel.org>.



May 25, 2018

To: All Nucor Customers

Re: **2017 Recycled Content of Nucor Steel Mill Products**

Nucor Corporation is North America’s largest recycler, using approximately 21.1 million net tons of scrap steel in 2017 to create new products. Nucor uses Electric Arc Furnace (EAF) technology at all of its steel recycling facilities. EAFs use post-consumer scrap steel material as the major feedstock, unlike blast furnace operations that use mined iron ore as the major feedstock. Nucor has prepared the following information to help calculate the recycled content for products being used in “Green Building” applications or for projects in the LEED® certification program. These percentages are approximate and are based on the total weight of the products. The calculations are based on 2017 scrap steel delivered and hot metal tons produced and are defined in accordance with ISO 14021:2001. More specific product information may be available from facility representatives. You can find the division contact information here - http://nucor.com/media/Nucor_LEED_CONTACTS.pdf.

Recycled Content – LEED 2009 MR 4; LEED v4 MR Credit: Sourcing of Raw Materials

2017 Recycled Steel Content of Nucor Products (% by Total Weight)	
Product Group	Average Recycled Content
Nucor Bar Products	96.1%
Nucor Engineered Bar Products	86.5%
Nucor Beam Products	80.7%
Nucor Plate Products	63.1%
Nucor Sheet Products	58.9%
Nucor Castrip®	86.0%
Total Nucor Steel Combined	72.6%
Vulcraft Structural Products	96.1%
Vulcraft / Verco Decking	58.9%
Nucor Grating / Fisher-Ludlow Grating	96.1%
Nucor Building Group	72.6%
Harris Rebar	96.1%
Nucor Fastener Products	96.1%
Nucor Wire Products	96.1%
Nucor Cold Finish	86.5%

Regional Materials – LEED 2009 Credit 5; LEED v4 Local Sourcing

Nucor tracks the origin of scrap shipments to our mills. Nucor can approximate the amount of scrap recovered from any project site region. Nucor owns steel and steel products manufacturing facilities throughout the US that are often within 500 miles of the project site. Please refer to the LEED Contact List (<http://nucor.com/responsibility/sustainability/compliance/leed/>), then click on “LEED Contact”), and contact the specific Nucor representative at the facility directly.



NORTH AMERICAN STAINLESS



6870 Highway 42 East
Ghent, KY 41045-9615

Phone: (502) 347-6000

January 29, 2018

Dear Valued Customer,

This letter is in response to your inquiry regarding the scrap usage at our only manufacturing facility in Ghent, KY. NAS uses recycled scrap to produce stainless steel flat products and long products. The type of scrap includes both stainless and carbon, and is a mixture of post-consumer, and pre-consumer (i.e, home scrap). The recycled content varies per heat and grade of steel. The average recycled content for 2017 was approximately 87.1%. Post-consumer scrap 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. However, NAS does not guarantee any specific recycled content per steel grade or heat. NAS's goal is to maximize the quantity of scrap used per heat while maintaining the quality of the steel.

Post-Consumer Recycled Content	Pre-Consumer Recycled Content	Total Recycled Percentage
72.1%	15%	87.1%

The stainless and carbon scrap are procured from sources in North America. At NAS, scrap is melted to produce slabs and billets in Ghent, Kentucky. The slabs and billets are then further processed at our Ghent facility to make a variety of coils and long products.

Stainless Steel is a closed loop or self-sustainable material in that stainless is 100% recyclable. It is considered a valuable material at the end of the life cycle providing consumer motivation to ensure the material is directed back into the scrap stream to be recycled. This conserves natural resources further reducing energy consumption in the mining and refining process of the valuable elemental components (such as Iron, Nickel, Chromium, etc.).

If you have any questions please do not hesitate to contact me or your NAS Sales Representative at 502-347-6000, or via our website.

Sincerely,

Anil Yadav
Vice President of Operations
North American Stainless

FERO Corporation
2018/2019
Recycled Steel Calculation

<u>Steel Supplier</u>	<u>Percentage of Tie Assembly</u>	Percentage Recycled Content		
		<u>Post-Consumer</u>	<u>Pre-Consumer</u>	<u>Total</u>
Nucor - Seattle WA	85%	90.3%	5.4%	95.7%
NAS - Ghent KY	15%	72.1%	15.0%	87.1%
Total	100%	87.6%	6.8%	94.4%