



### List of potential products supplied by Nudura distributors:

Nudura® Insulated Concrete Form System

Nudura® Brand Polyurethane Spray Foam Adhesive

### List of LEED Assessment Categories potentially contributed to or affected by these products:

Category Code	Assessment/Element	Credit Designation	Possible Points
EA	Energy & Atmosphere *Optimize Energy Performance	Credit 5	1-19
MR	Materials & Resources *Environmental Product Declaration *Sourcing of Raw Materials	Credit 3 Credit 4	1-2 1-2
IEQ	Indoor Environmental Quality *Low Emitting Materials: (Adhesives and Sealants)	Credit 4	1
EA	Energy & Atmosphere *Optimize Energy Performance Calculated finished R-Value of Nudura Wall (per ASHRAE Standards) = R23.59	Credit 5	
MR	Materials & Resources *Sourcing of Raw Materials	Credit 4	1-2
	<b>Form Recycle Content (based on imperial or U.S. standard measure)</b>		
	8" core x 8' x 18" Nudura Form weight		= 15.68 lbs
	Equivalent weight/gross = 1.307 lbs/ft <sup>2</sup>		= 100%
	% Content Virgin Material (EPS Foam Panels)		= 42.6%
	Content Recycled Polypropylene (PP) Webs		= 57.4%
	Equivalent weight/gross wall area = 0.750 lbs/ft <sup>2</sup>		
	Post Consumer Content of PP Webs/Total Form weight		= 17.2%
	Equivalent weight/gross wall area = 0.255 lbs/ft <sup>2</sup>		
	Pre Consumer Content of PP Webs/Total Form weight		= 40.2%
	Equivalent weight/gross wall area = 0.525 lbs/ft <sup>2</sup>		
	<b>Form Recycle Content (based on SI [metric] measure)</b>		
	8" core x 8' x 18" Nudura Form weight		= 7.112 kg
	Equivalent weight/gross = 6.382 kg/m <sup>2</sup>		= 100%
	% Content Virgin Material (EPS Foam Panels)		= 42.6%
	Content Recycled Polypropylene (PP) Webs		= 57.4%
	Equivalent weight/gross wall area = 3.662 kg/m <sup>2</sup>		
	Post Consumer Content of PP Webs/Total Form weight		= 17.2%
	Equivalent weight/gross wall area = 1.099 kg/m <sup>2</sup>		
	Pre Consumer Content of PP Webs/Total Form weight		= 40.2%
	Equivalent weight/gross wall area = 2.563 kg/m <sup>2</sup>		

**Summary of Materials and Recycled Content contained in typical NUDURA Formed Reinforced Concrete Walls**  
Based on NUDURA 8 inch (203 mm) Core Standard Form

Material	Weights based on - Form Only						Weights based on - All Materials Used In the Wall					
	Weight/Form		%	Wt/Face Unit Wall Area		%	Weight/Form		%	Wt/Face Unit Wall Area		%
	lbs	kg		lbs/ft <sup>2</sup>	kg/m <sup>2</sup>		lb	kg		lbs/ft <sup>2</sup>	kg	
<b>EPS Foam</b>	6.680	3.030	42.6%	0.557	2.718	42.6%	6.680	3.030	0.5%	0.557	2.718	0.5%
% Recycled - Post Consumer	0.000	0.000	0.0%	0.000	0.000	0.0%	0.000	0.000	0.0%	0.000	0.000	0.0%
% Recycled - Pre-Consumer	0.000	0.000	0.0%	0.000	0.000	0.0%	0.000	0.000	0.0%	0.000	0.000	0.0%
<b>Polypropylene Webs</b>	9.000	4.082	57.4%	0.750	3.662	57.4%	9.000	4.082	0.7%	0.750	3.662	0.7%
% Recycled - Post Consumer	2.70	1.225	17.2%	0.225	1.099	17.2%	2.700	1.225	0.2%	0.225	1.099	0.2%
% Recycled - Pre-Consumer	6.370	2.858	40.2%	0.525	2.563	40.2%	6.300	2.858	0.5%	0.525	2.563	0.5%
<b>Reinforcing Steel</b>							22.908	10.391	1.8%	1.909	9.321	1.8%
% Recycled - Post Consumer							12.966	5.881	1.0%	1.08	5.275	1.0%
% Recycled - Pre-Consumer							7.491	3.398	0.6%	0.624	3.048	0.6%
<b>Concrete</b>							1200.000	544.316	96.9%	100.000	488.24	96.9%
% Recycled - Post Consumer							300.000	136.079	24.2%	25.000	122.060	24.2%
% Recycled - Pre-Consumer							300.000	136.079	24.2%	25.000	122.060	24.2%
<b>Total</b>	15.680	7.112	100.0%	1.307	6.380	100.0%	1238.588	561.820	100.0%	103.216	503.940	100.0%
% Recycled - Post Consumer	2.700	1.225	17.2%	0.225	1.099	17.2%	315.666	143.185	25.5%	26.306	128.434	25.5%
% Recycled - Pre-Consumer	6.300	2.858	40.2%	0.525	2.563	40.2%	313.791	142.335	25.3%	26.149	127.671	25.3%

NOTES:

CD06: EPS panel weight is based on Polymax/C Form QC Manuals specified dry weight of 8ft (2.44m) long NUDURA Std less web/fastening strips weight  
 CD10: Web weights are based on 2010 QC Manual weights for 8-inch (203mm) hinge pin web/fastening strips considering a total of 12 webs per form for total weight of 9.0 lbs (4.082 kg)  
 JJ 15: LF of steel reinforcement in wall is based on No. 5 verticals intalled @ 16"o/c = 0.75 LF/SF of wall  
 JJ 15: LF of steel reinforcement in wall is also based on No. 4 horizontals intalled @ 18"o/c = 0.75 LF/SF of wall  
 L15: Calculation is as follows: No. 5 bar = 1.502 X .75 = 1.127 lbs/ft<sup>2</sup> No 4 bar = 1.043 X 0.75 = 0.782 lbs/ft<sup>2</sup> TOTAL = 1.909 lbs/ft<sup>2</sup>  
 116 & 117: Post Consumer and Pre-Consumer Recycle Contents based on publications from the American Steel Recycling Institute confirming 56.6% of steel comes from post consumer sources  
 120 & 121: Though breakdown is low, calculation assumes that 50% of concrete is recycled content with an even split between post and pre-consumer source (Lafarge)

Note: To calculate total relative weight of NUDURA materials for project - multiply total form area supplied to job by weight given above per unit wall area.

MR

Materials & Resources

**\*Responsible Sourcing of Raw Materials**

Credit 5

1-2

Nudura Form Fabrication: United States

- Columbus, Georgia, 31901

High Density Polypropylene: Canada

- Granby, Quebec, J2J IA6

**Material Weight (Mass)**

**Weight (Mass) Per Unit Wall Area**

**% of Overall Wall Per Unit Wall Area**

NUDURA Form:	1.307 lbs/ft <sup>2</sup> - (6.382 kg/m <sup>2</sup> )	1.27%
Typical Reinforcing Steel Grid:	1.909 lbs/ft <sup>2</sup> - (9.321 kg/m <sup>2</sup> )	1.85%
Concrete:	100.00 lbs/ft <sup>2</sup> - (288.243 kg/m <sup>2</sup> )	96.88%

IEQ

Indoor Environmental Quality

**\*Low Emitting Materials**

**Adhesives & Sealants**

Credit 4.1

NUDURA® Brand Polyurethane Spray Foam Adhesive

- Fenton, Missouri 63026

VOC Content: 154 g/L (less water)

*Complies with South Coast Air Quality Management District (SCAQMD)*

*Rule 1168, under Specialty Applications Section as: Special Purpose*

*Contact Adhesive: < 250 g/L (less water)*

*Note: Refer to the Materials Data Sheet on  
NUDURA Brand Low Expansion Spray Foam*

			Materials and Resources				
Product	Product Category	Description	Location of Manufacture	VOC (grams/L)	VOC % by Weight (as applied mixed)	Single Extracted Material	Additional Information
TREMdri 160 Liquid Waterproofing	Coating	Waterproofing Membrane	Cleveland, OH	70 g/L	4.93%	No	• Lower than SCAQMD Rule 1113
Horizon Parge Coarse Coat (Tacoma Grey)	Coating	Elastomeric, emulsion-based coating		53 g/L	3.02%	No	• Lower than SCAQMD Rule 1113
ExoAir 110AT	*Air, vapor, & weather resistant coating	Self-adhered air and vapor barrier membrane	Newbury, MA	<1 g/L	<1%	No	• Manufacturing inventory available • Lower than SCAQMD Rule 1113
Dymonic 100	Sealants & Mastics	Single-component, medium-modulus, non-sag polyurethane sealant	Cleveland, OH	40 g/L	3%	No	• Manufacturing inventory available • Lower than SCAQMD Rule 1168 • Greenguard certified
Enviro-Dri Field Membrane	*Air, vapor, & weather resistant coating	Permeable membrane	Medina, OH	66 g/L	<5%	No	• Red List Free for Living Building Challenge • Lower than SCAQMD Rule 1113

\*Air barriers, when properly installed, have been shown to reduce energy costs for HVAC by as much as 40% versus buildings without fully-adhered air barriers. This is important to remember as utilizing such an air barrier system such as ExoAir 110AT may assist in earning points within LEED.

For additional LEED® Compliant data pertaining to NUDURA ICF Products, please contact your local NUDURA Distributor. Please contact us for assistance: 866.468.6299 or visit [nudura.com](http://nudura.com)