CertainTeed

Green Building Products

Superior performance. Environmental consciousness.



Vol. 3, 04-09







CertainTeed respects the environment through the responsible development of sustainable building products and systems.

Builders, contractors and manufacturers continue to look for ways to reduce our industry's impact on the environment while meeting customer demand for products that deliver beauty, comfort and performance. CertainTeed's commitment to these goals is reflected here, highlighting our ongoing effort to become the preeminent supplier of green building materials.



SYSTEMS

LEED: Commercial

LEED: Residential—Advanced Framing

LEED: Residential—Standard Framing

NAHB: Residential—Advanced Framing NAHB: Residential—Standard Framing

p¹⁴⁻¹⁹

INTERIOR

Ceilings Gypsum Insulation p^{20-29}

EXTERIOR

Fence, Railing and Deck FiberCement Siding and Trim Foundations Polymer Siding, Vinyl Siding and Trim Roofing

As homeowners and municipalities become more environmentally conscious, building professionals are more likely to be asked about adhering to green building standards—whether they be the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™, the National Association of Home Builders (NAHB) National Green Building Standard™, or local codes with environmental components.



The LEED rating system was developed by the U.S. Green Building Council to provide a national benchmark for the design, construction and operation of high performance sustainable buildings. In order for a building to become LEED certified, it must meet certain prerequisites and achieve specified performance levels to qualify for rating points. CertainTeed is a member of the U.S. Green Building Council and supports the LEED program.

NAHB collaborated with the International Code Council (ICC) to develop an ANSI standard for green building practices. This standard, known as the National Green Building Standard (NGBS), provides a system for certifying homes as green buildings, awarding points to homes based on the design and material choices made in constructing the home. The NAHB credits listed in this brochure are based on the final version of the standard, approved by ANSI in early 2009.

Both LEED and NAHB standards provide verification that a building project meets the high performance standards for green buildings. LEED certification is recognized nationwide as proof that a building is designed to be environmentally responsible and a healthy place to live and work









This home features Cedar Impressions® Polymer Siding (Half-Round Shingles), Monogram™ Vinyl Siding, Beaded T2 Soffit, InvisiVent® Soffit, and Restoration Millwork™ Vinyl Trim. The vinyl siding and trim products feature significant post-consumer and post-industrial recycled content and eliminate the need for paint and caulk, which further decreases their environmental impact. Panorama™ Composite Railing incorporates between 40 and 75% recycled materials. Independence™ is among the many CertainTeed roofing products manufactured with pre-consumer recycled content.

Waterfront Technology Center at Camden

LEED Gold

CertainTeed CertaPro™ unfaced fiber glass batt insulation provides New Jersey's Waterfront Technology Center at Camden superior thermal protection and energy efficiency as well as acoustic control for improved working conditions within the building. The unfaced light-density batt is designed for steel stud construction and easy friction-fit installation.

CertainTeed ColorMax[™] Prefinished FiberCement Siding—the style shown here is Random Square Staggered Edge in Nantucket Gray—incorporates more than 30% post-industrial recycled material. The Presidential Shake[™] TL asphalt roofing shingles (in Autumn Blend) that top off this home are among the many CertainTeed roofing products manufactured with pre-consumer recycled content.

Green Building Products

At-A-Glance

	Percent Recycled Content	Does Not Emit Harmful Chemicals	Third-party Certifications	Manufacturing Plant ISO 14001 Certified (+) or has an Environmental Management System (🍽)	Contributes to Energy Efficiency³ (►♥) or ENERGY STAR Certified	Reduces Carbon Footprint ⁴	Contributes to Achieving LEED®-NC Credits	Contributes to Achieving LEED®-H Credits	Contributes to Achieving NAHB National Green Building Standard Credits
Form-A-Drain®	92%	0 ,6		≥ ,∉		0 ,6	0,0	0,0	0,0
ThermaEZE™		D /8			P ⁶	0,6	0,0	0,0	0,0
Platon [®]	95%	0,9		9,0			0,9	0,0	0,9
FiberCement Siding and Trim	>30%	0 , 6	SFI ²	0,6			0, €	0 ,#	0,0
Polymer Siding, Vinyl Siding and Trim	60% ⁷	0 , €		0 , 6	₹7	D _i G	0,6	≥ / <i>©</i> 7	0,5
Restoration Millwork™		0 ,Ø					0,€	0,6	≥,6
Insulation – Batts	30-40%	0 ,6	GREENGUARD	+	Р	D ,&	0, 6	0,5	0,5
Insulation – Blowing Wool	30-40%	0,6	GREENGUARD	+	Р	D , G	0 ,6	0,6	0, #
CertaSpray [™] Foam Insulation		0 , €			≥, €	D _i G	0,6	0,6	0,5
Insulation – HVAC	20-80%	0 ,6	GREENGUARD	+	Р	D /6	0 ,6	0,6	0,6
Gypsum – ProRoc®, GlasRoc® and ProRoc® M2Tech™	6-99%¹	<i>8</i> √ <i>8</i>		+			0,8	b ,∉1	9 , 8
Roofing – Residential	1-89%	<i>9</i> , ∉	10		9,8	0 ,6	₩,#	0 ,#	0,0
Roofing – Commercial	1-28%	0 , €			ENERGY STAR	D _i G	0,6	0,6	0,5
Ceilings	12-88%	0 , 6	CHPS⁵		9,8	0 ,6	0,6	0,6	0,0
Fence	5-10%	<i>0,6</i>		0 , 6			0,6		0,0
Deck	5-10%	0 , 6		0 ,8			0,0		0,0
Railing	40-70%	0 ,Ø		9 , 6			0,6	0,6	0,0



- Depends on plant: Products made at Toronto, ON; Moundsville, WV; and Carrollton, KY, plants contain enough recycled content to qualify as EPP for LEED-H.
- Sustainable Forestry Initiative (SFI) certification pending for all pulp in FiberCement products.
- 3 Contributes to Energy Efficiency This product reduces the energy consumption of the building in which it is installed by reducing the energy needed to light, heat, and/or cool the building.
- 4 Reduces Carbon Footprint This product reduces the carbon emissions related to the building in which it is installed either because less fossil fuel was used in its production or installation than comparable materials, or because the product reduces the energy used in the operation of the building (i.e., heating, cooling, lighting, etc.).
- 5 Collaborative for High Performance Schools.
- 6 P = ENERGY STAR Partner.
- 7 CedarBoards™ only.

*Apply thermal or ignition barrier. Check local code.

CERTAINTEED PRODUCT CONTRIBUTIONS TO LEED-NC* CREDITS: COMMERCIAL

PR	ODUCT	CREDITS	POINTS
1.	GlasRoc Sheathing	MR 5. Regional Materials	1 or 2
2.	DryRight Insulation with MemBrain	EA Prerequisite 2. Minimum	
	Dryringin modulation with monibrain	Energy Performance	Required
3.	CertaPro Insulation	EA 1. Optimize Energy Performance	1 to 10
ع. 4.	CertaSpray Foam Insulation	. 0,	1 or 2
7.	Certaspray i cam msuration	MR 4. Recycled Content	
		MR 5. Regional Materials	1 or 2
		EQ 7.1. Thermal Comfort	1
5.	ProRoc and ProRoc M2Tech	MR 2. Construction Waste Management	1 or 2
	Gypsum Board for Walls	MR 4. Recycled Content	1 or 2
		MR 5. Regional Materials	1 or 2
6.	CertainTeed Acoustical	EA 1. Optimize Energy Performance	1 to 10
	Ceiling Panel	MR 2. Construction Waste Management	1 or 2
		MR 4. Recycled Content	1 or 2
		MR 5. Regional Materials	1 or 2
		MR 6. Rapidly Renewable Materials	1
	1	EQ 8.1. Daylight and Views	1 or 2
7.	SoftTouch Duct Wrap,	EA Prerequisite 2. Minimum Energy	
	ToughGard 2 Duct Liner,	Performance	Required
	ToughGard R Duct Liner**	EA 1. Optimize Energy Performance	1 to 10
		MR 4. Recycled Content	1 or 2
		MR 5. Regional Materials	1 or 2
		EQ 7.1. Thermal Comfort	1
8.	CrimpWrap Pipe Insulation	EA Prerequisite 2. Minimum Energy	
		Performance	Required
		EA 1. Optimize Energy Performance	1 to 10
		MR 4. Recycled Content	1 or 2
		MR 5. Regional Materials	1 or 2

PRODUCT	CREDITS	POINTS
. Low Slope CoolStar Roofing Surface	SS 7.2. Heat Island Effect—Roof	1
	EA Prerequisite 2. Minimum Energy	
	Performance	Required
	EA 1. Optimize Energy Performance	1 to 10
	MR 5. Regional Materials	1 or 2
	EQ 7.1. Thermal Comfort	1
0. FlintBoard Roof Insulation	EA Prerequisite 2. Minimum Energy	
	Performance	Required
	EA 1. Optimize Energy Performance	1 to 10
	MR 4. Recycled Content	1 or 2
	MR 5. Regional Materials	1 or 2
	EQ 7.1. Thermal Comfort	1
. FiberCement Siding	MR 4. Recycled Content	1 or 2
	MR 5. Regional Materials	1 or 2
2. FiberCement 7/16" Trim and Soffit	MR 4. Recycled Content	1 or 2
	MR 5. Regional Materials	1 or 2
3. CedarBoards Insulated Siding,	EA 1. Optimize Energy Performance	1 to 10
Vinyl Siding, Polymer Siding	(CedarBoards only)	
	MR 4. Recycled Content	1 or 2
F. Restoration Millwork Trim	MR 5. Regional Materials	1 or 2
5. Form-A-Drain	MR 4. Recycled Content	1 or 2
Foundation Footing System		
5. ThermaEZE	EA Prerequisite 2. Minimum Energy	1
Thermal Insulation System	Performance	Required
	EA 1. Optimize Energy Performance	1 to 10
	EQ 7.1. Thermal Comfort	1
7. Platon Air Gap Waterproofing Membra	neMR 4 Recycled Content	1 or 2

^{*} LEED-NC Version 2.2



^{**} Does not achieve MR 4

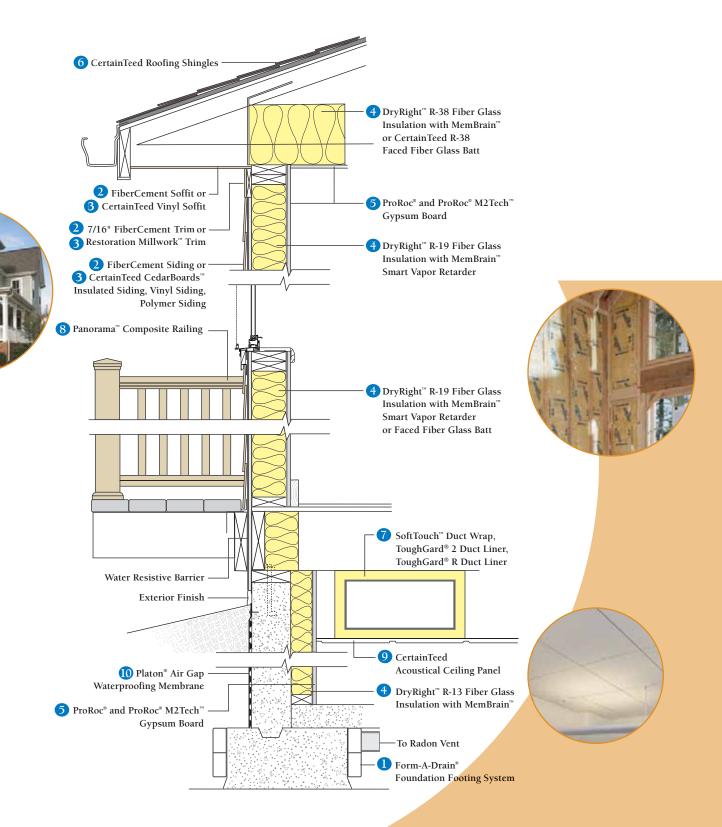
LEED-H 8 CertainTeed Roofing Shingles 6 InsulSafe® SP Premium **Blowing Wool Insulation** 6 CertaSpray™ Foam Insulation 7 ProRoc® and ProRoc® M2Tech™ Gypsum Board FiberCement Soffit or 5 CertainTeed Vinyl Soffit OPTIMA® Loose Fill 4 FiberCement 7/16" Trim or – Fiber Glass Insulation 6 Restoration Millwork™ Trim 6 MemBrain™ 3 FiberCement Siding or Smart Vapor Retarder 4 CertainTeed CedarBoards™ Insulated Siding, Vinyl Siding, Polymer Siding 10 Panorama™ Composite Railing 6 OPTIMA® Loose Fill Fiber Glass Insulation 6 CertaSpray™ Foam Insulation Advanced Framing ToughGard® Duct Board, Ultra*Duct™ BLACK Duct Board Water Resistive Barrier **Exterior Finish** CertainTeed Acoustical Ceiling Panel Platon® Air Gap Waterproofing Membrane 7 ProRoc® and ProRoc® M2Tech™ Gypsum Board 2 ThermaEZE™ Thermal Insulation System To Radon Vent ● Form-A-Drain® Foundation Footing System CertainTeed Building Responsibly

CERTAINTEED PRODUCT CONTRIBUTIONS TO LEED-H* CREDITS: RESIDENTIAL-ADVANCED FRAMING

PRODUCT	CREDITS	POINTS
Form-A-Drain Foundation Footing System	ID 2. Durability Management Process EQ 9. Radon Protection	3
2. ThermaEZE Thermal Insulation System	EA 1. ENERGY STAR Labeled Home EA 2. Insulation	1 to 34
 FiberCement Siding FiberCement 7/16" Trim and Soffit 	MR 2. Environmentally Preferable Products—Local	0.5
5. CedarBoards Insulated Siding, Vinyl Siding and Soffit, Polymer Siding,	EA 1. ENERGY STAR Labeled Home (CedarBoards only) MR 2. Environmentally Preferable	1 to 34
Restoration Millwork Trim	Products—Materials MR 2. Environmentally Preferable Products—Local	0.5
6. CertaSpray Foam Insulation, OPTIMA Loose Fill Fiber Glass Insulation, MemBrain Smart Vapo	EA 1. ENERGY STAR Labeled Home EA 2. Insulation I ID 2. Durability Management Process	1 to 34 2
Retarder, InsulSafe SP Premium Blowing Wool Insulation	MR 2. Environmentally Preferable Products—Materials	0.5
	MR 2. Environmentally Preferable Products—Local MR 2. Environmentally Preferable	0.5
(Products—Emission Specifications	0.5
7. ProRoc and ProRoc M2Tech Gypsum Board for Walls and Ceili	MR 2. Environmentally Preferable ngs Products—Materials MR 2. Environmentally Preferable	0.5
	Products—Local	0.5

PRODUCT	CREDITS	POINTS
8. CertainTeed Roofing Shingles	EA 1. ENERGY STAR Labeled Home MR 2. Environmentally Preferable	1 to 34
	Products—Local	0.5
9. ToughGard Duct Board,	EA 5. Heating and Cooling	2 2
Ultra*Duct BLACK Duct Board	Distribution System	2 to 3
10. Panorama Composite Railing	MR 2. Environmentally Preferable Products—Materials	0.5
11. CertainTeed Acoustical Ceiling Panel	MR 2. Environmentally Preferable Products—Materials	0.5
·	MR 2. Environmentally Preferable	
	Products—Local	0.5
	MR 3. Waste Management	0.5 to 3
12. Platon Air Gap Waterproofing Membrane	ID 2. Durability Management Process	3

^{*} LEED-H January 2008



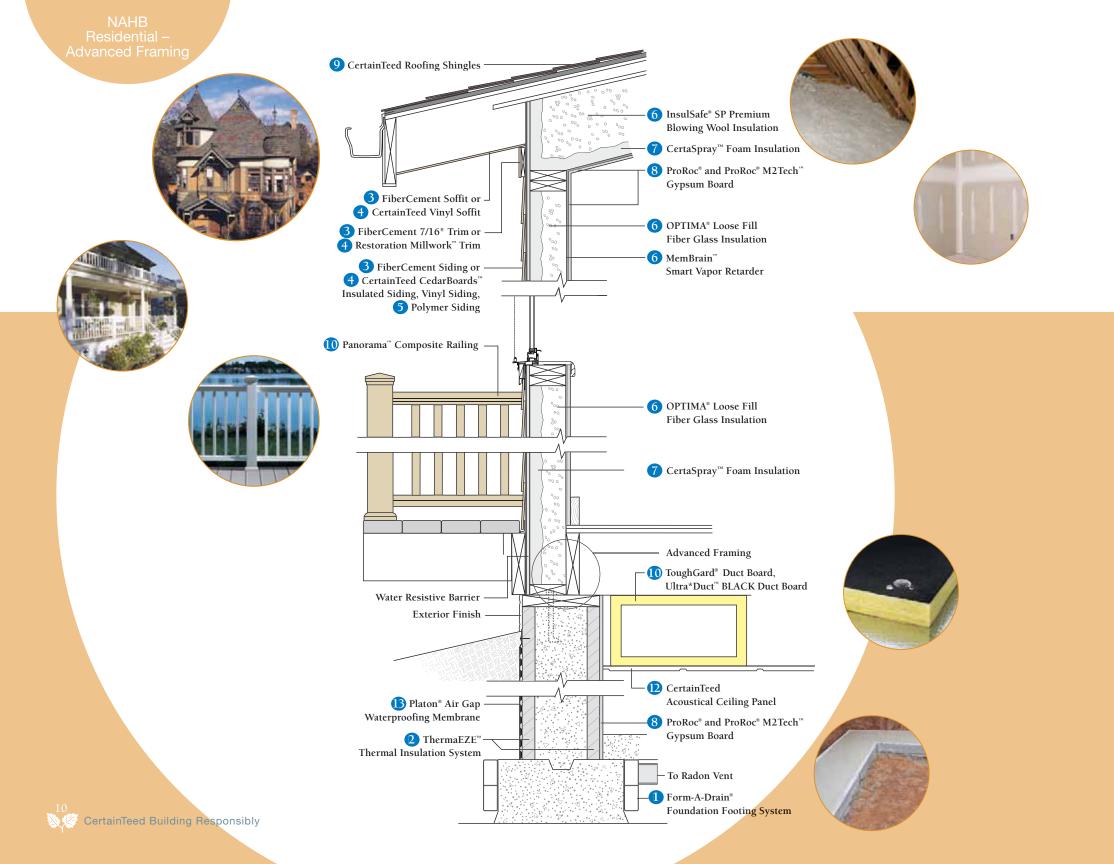


CERTAINTEED PRODUCT CONTRIBUTIONS TO LEED-H* CREDITS: RESIDENTIAL-STANDARD FRAMING

PR	ODUCT	CREDITS	POINTS
1.	Form-A-Drain	ID 2. Durability Management Process	3
		EQ 9. Radon Protection	1
2.	FiberCement Siding,	MR 2. Environmentally Preferable	
	Soffit and 7/16" Trim	Products—Local	0.5
3.	CedarBoards Insulated Siding	EA 1. ENERGY STAR Labeled Home	1 to 34
	Vinyl Siding and Soffit,	(CedarBoards only)	
	Polymer Siding,	MR 2. Environmentally Preferable	
	Restoration Millwork Trim	Products—Materials	0.5
		MR 2. Environmentally Preferable	
	1	Products—Local	0.5
4.	R-13, R-19 and R-38 DryRight	ID 2. Durability Management Process	3
	with MemBrain or R-38 Faced	EA 1. ENERGY STAR Labeled Home	1 to 34
	Fiber Glass Batt—	EA 2. Insulation	2
	Walls and Rim Joist	MR 2. Environmentally Preferable	
		Products—Materials	0.5
		MR 2. Environmentally Preferable	
		Products—Local	0.5
		MR 2. Environmentally Preferable	
		Products—Emission Specifications	0.5
ŏ.	ProRoc and ProRoc M2Tech	MR 2. Environmentally Preferable	
	Gypsum Board for Walls and Ceilings	Products—Materials	0.5
		MR 2. Environmentally Preferable	
		Products—Local	0.5

PRODUCT	CREDITS	POINTS
6. CertainTeed Roofing Shingles	EA 1. ENERGY STAR Labeled Home MR 2. Environmentally Preferable	1 to 34
	Products—Local	0.5
 SoftTouch Duct Wrap, ToughGard 2 Duct Liner, ToughGard R Duct Liner 	EA 5. Heating and Cooling Distribution System	2 to 3
8. Panorama Composite Railing	MR 2. Environmentally Preferable Products—Materials	0.5
9. CertainTeed Acoustical Ceiling Panel	MR 2. Environmentally Preferable Products—Materials MR 2. Environmentally Preferable	0.5
	Products—Local MR 3. Waste Management	0.5 0.5 to 3
10. Platon Air Gap Waterproofing Membrane	ID 2. Durability Management Process	3

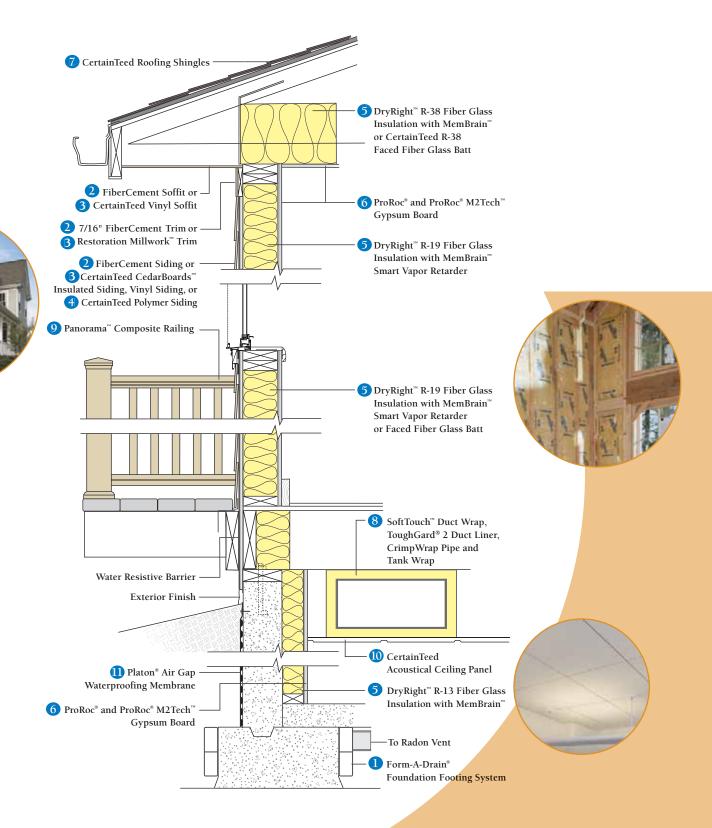
^{*} LEED-H January 2008



CERTAINTEED PRODUCT CONTRIBUTIONS TO 2009 NAHB NATIONAL GREEN BUILDING STANDARD CREDITS: RESIDENTIAL-ADVANCED FRAMING

	PRODUCT	CREDITS	DESCRIPTION	POINTS
1.	Form-A-Drain	602.3.2	Install Perimeter Drain	4
	Foundation	604.1	Recycled Content Materials	3
	Footing System	607.1	Resource-efficient Materials	3
		608.1	Locally Available, Indigenous Materials	2
		902.3	Radon Control	10 to 15
2.	ThermaEZE Thermal	608.1	Locally Available, Indigenous Materials	2
	Insulation System	702.2	Energy Cost Performance	30 to 120
		703.1.1	Building Envelope	10 to 36
		703.2.1	Insulation and Air Sealing	3 to 15
3.	WeatherBoards/ColorMax FiberCement Siding,	601.7	No Site Applied Finishing Materials (Color Max Only)	2 to 5
	WeatherBoards FiberCement	602.8	Termite-Resistant Materials	2 to 6
	Soffit and 7/16" Trim	604.1	Recycled Content Materials	1 to 2
		608.1	Locally Available, Indigenous Materials	2
4.	CedarBoards	601.7	No Site Applied Finishing Materials	2 to 5
	Insulated Siding,	602.8	Termite-Resistant Materials	2 to 6
	Vinyl Siding and Soffit, Restoration	604.1	Recycled Content Materials (CedarBoards only)	2 to 4
	Millwork Trim	605.3	Construction Materials are Recycled Offsite	3
		608.1	Locally Available, Indigenous Materials	2
		609.1	Use LCA to Determine Most Environmentally Preferable Material	3
		702.2	Energy Cost Performance (CedarBoards only)	30 to 120
		703.1.1	Building Envelope (CedarBoards only)	10 to 36
5.	Cedar Impressions	601.7	No Site Applied Finishing Materials	2 to 5
	Polymer Shakes	602.8	Termite-Resistant Materials	2 to 6
	and Shingles	608.1	Locally Available, Indigenous Materials	2
6.	OPTIMA Loose Fill	604.1	Recycled Content Materials	1 to 2
	Fiber Glass Insulation,	608.1	Locally Available, Indigenous Materials	2
	MemBrain Va <mark>por</mark> Retarder, InsulSafe SP Premium	609.1	Use LCA to Determine Most Envi <mark>ro</mark> nmentally Preferable Material	3
	Blowing Wool Insulation	610.1	Plant is ISO 14001 Certified	1 to 10
		702.2	Energy Cost Performance	30 to 120
		703.1.1	Building Envelope	10 to 36
		703.1.2	Building Envelope – Insulation Grade	10 to 15
		703.2.1	Insulation and Air Sealing	3 to 15
Ī		901.11	Insulation Meets Emissions Standards	4

PRODUCT	CREDITS	DESCRIPTION	POINTS
7. CertaSpray	608.1	Locally Available, Indigenous Materials	2
	702.2	Energy Cost Performance	30 to 120
	703.1.1	Building Envelope	10 to 36
	703.1.2	Building Envelope – Insulation Grade	10 to 15
	703.2.1	Insulation and Air Sealing	3 to 15
ProRoc and ProRoc	604.1	Recycled Content Materials	2 to 6
M2Tech Gypsum Board	608.1	Locally Available, Indigenous Materials	2
for Walls and Ceilings	609.1	Use LCA to Determine Most Environmentally Preferable Material	3
	610.1	Plant is ISO 14001 Certified	1 to 10
. CertainTeed Roofing Shingles	602.13	Roof Surfaces – ENERGY STAR or Cool Roof Council Certified	3
y	604.1	Recycled Content Materials	2 to 4
	608.1	Locally Available, Indigenous Materials	2
	702.2	Energy Cost Performance	30 to 120
	703.1.1	Building Envelope	10 to 36
O. ToughGard Duct Board,	604.1	Recycled Content Materials	1
Ultra*Duct BLACK	608.1	Locally Available, Indigenous Materials	2
Duct Board and	610.1	Plant is ISO 14001 Certified	1 to 10
CrimpWrap	702.2	Energy Cost Performance	30 to 120
	703.5.4.1	Hot Water Piping Insulation (Minimum R-4)	1
	901.11	Insulation Meets Emissions Standards	1
	903.5.2	Cold Water Piping Insulation (Minimum R-4)	2
	903.6 (1)	HVAC System is Insulated to R-6	Mandatory
	903.6 (2)	HVAC System is Insulated to R-8	2
1. Panorama Composite	601.7	No Site Applied Finishing Materials	2 to 5
Railing	602.8	Termite-Resistant Materials	2 to 6
	604.1	Recycled Content Materials	1 to 3
	606.3	Manufacturing Energy	2
	608.1	Locally Available, Indigenous Materials	2
2. CertainTeed Acoustical	601.7	No Site Applied Finishing Materials	2 to 5
Ceiling Panel	604.1	Recycled Content Materials	1 to 3
\ A	605.3	Construction Materials are Recycled Offsite	3
	608.1	Locally Available, Indigenous Materials	2
3. Platon Air Gap	602.7	Termite Barrier	4
Waterproofing	602.11	Enhanced Foundation Waterproofing	4
Membrane	604.1	Recycled Content Materials	3
	608.1	Locally Available, Indigenous Materials	2





CERTAINTEED PRODUCT CONTRIBUTIONS TO 2009 NAHB NATIONAL GREEN BUILDING STANDARD CREDITS: RESIDENTIAL—STANDARD FRAMING

	PRODUCT	CREDITS	DESCRIPTION	POINTS
1.	Form-A-Drain	602.3.2	Install Perimeter Drain	4
	Foundation	604.1	Recycled Content Materials	3
	Footing System	607.1	Resource-efficient Materials	3
	3 ,	608.1	Locally Available, Indigenous Materials	2
		902.3	Radon Control	10 to 15
2.	WeatherBoards/ColorMax FiberCement Siding,	601.7	No Site Applied Finishing Materials (Color Max Only)	2 to 5
	WeatherBoards FiberCement	602.8	Termite-Resistant Materials	2 to 6
	Soffit and 7/16" Trim	604.1	Recycled Content Materials	1 to 2
	John and 1710 mm	608.1	Locally Available, Indigenous Materials	2
3.	CedarBoards	601.7	No Site Applied Finishing Materials	2 to 5
	Insulated Siding,	602.8	Termite-Resistant Materials	2 to 6
	Vinyl Siding and Soffit, Restoration	604.1	Recycled Content Materials (CedarBoards only)	2 to 4
	Millwork Trim	605.3	Construction Materials are Recycled Offsite	3
	/	608.1	Locally Available, Indigenous Materials	2
		609.1	Use LCA to Determine Most Environmentally Preferable Material	3
		702.2	Energy Cost Performance (CedarBoards only)	30 to 120
		703.1.1	Building Envelope (CedarBoards only)	10 to 36
4.	Cedar Impressions	601.7	No Site Applied Finishing Materials	2 to 5
	Polymer Shakes	602.8	Termite-Resistant Materials	2 to 6
	and Shingles	608.1	Locally Available, Indigenous Materials	2
5.	R-13, R-19 and R-38	604.1	Recycled Content Materials	1 to 2
	DryRight with	608.1	Locally Available, Indigenous Materials	2
	MemBrain or R-38 Faced Fiber Glass	609.1	Use LCA to Determine Most Environmentally Preferable Material	3
	Batt—Walls and	610.1	Plant is ISO 14001 Certified	1 to 10
	Rim Joist	702.2	Energy Cost Performance	30 to 120
		703.1.1	Building Envelope	10 to 36
		703.1.2	Building Envelope – Insulation Grade	10 to 15
		703.2.1	Insulation and Air Sealing	3 to 15
		901.11	Insulation Meets Emissions Standards	4

PROD	UCT	CREDITS	DESCRIPTION	POINTS
. ProRoc	and ProRoc	604.1	Recycled Content Materials	2 to 6
M2Tech	Gypsum Board	608.1	Locally Available, Indigenous Materials	2
	ls and Ceilings	609.1	Use LCA to Determine Most Environmentally Preferable Material	3
		610.1	Plant is ISO 14001 Certified	1 to 10
Certain Shingle	Teed Roofing	602.13	Roof Surfaces – ENERGY STAR or Cool Roof Council Certified	3
og.		604.1	Recycled Content Materials	2 to 4
		608.1	Locally Available, Indigenous Materials	2
		702.2	Energy Cost Performance	30 to 120
		703.1.1	Building Envelope	10 to 36
SoftTou	ch Duct Wrap,	604.1	Recycled Content Materials	1
ToughG	ard 2 Duct Liner,	608.1	Locally Available, Indigenous Materials	2
CrimpV	/rap Pipe and	610.1	Plant is ISO 14001 Certified	1 to 10
Tank W	rap	702.2	Energy Cost Performance	30 to 120
		703.5.4.1	Hot Water Piping Insulation (Minimum R-4)	1
		901.11	Insulation Meets Emissions Standards	1
		903.5.2	Cold Water Piping Insulation (Minimum R-4)	2
		903.6(1)	HVAC System is Insulated to R-6	Mandatory
		903.6 (2)	HVAC System is Insulated to R-8	2
Panora	ma Composite	601.7	No Site Applied Finishing Materials	2 to 5
Railing	_	602.8	Termite-Resistant Materials	2 to 6
		604.1	Recycled Content Materials	1 to 3
		606.3	Manufacturing Energy	2
		608.1	Locally Available, Indigenous Materials	2
). Certain	Teed Acoustical	601.7	No Site Applied Finishing Materials	2 to 5
Ceiling	Panel	604.1	Recycled Content Materials	1 to 3
		605.3	Construction Materials are Recycled Offsite	3
		608.1	Locally Available, Indigenous Materials	2
. Platon	Air Gap	602.7	Termite Barrier	4
Waterp	roofing	602.11	Enhanced Foundation Waterproofing	4
Membr		604.1	Recycled Content Materials	3
		608.1	Locally Available, Indigenous Materials	2

CertainQuiet.

Understanding the role of CertainTeed Ceilings in meeting Green Building Standards



As a member of the U.S. Green Building Council (USGBC), CertainTeed Ceilings is a leader in the effort to provide acoustical ceiling and wall solutions that promote sustainable design. CertainTeed Ceilings' manufacturing processes incorporate sustainable design criteria—from the product's raw material content to how it's handled through manufacturing and shipping, as well as through the product life cycle.

Aside from raw materials, CertainTeed Ceilings offers a recycling program for the return and recycling of old ceiling panels into new ones. The cost savings from exercising this option instead of sending the discarded panels to local landfills provides the added benefit of allowing participants to qualify for valuable points under the LEED rating system for construction waste management.

green fact

- > More than 70% of manufacturing waste is recycled into ceiling products.
- > The majority of the Ceilings' product offering contains 50% recycled content or higher.
- > CertainTeed mineral fiber ceiling panels incorporate steel mill slag waste as well as post-consumer waste such as newspapers.
- > CertainTeed Ceilings' product lines incorporate one of the highest concentrations of recycled content in the ceiling industry.
- > CertainTeed Ecophon has a certificate for low consumption of water.

- > CertainTeed ceilings offer outstanding acoustical performance.
- > Designer Series Ecophon panels feature low VOC emittance.
- > Many CertainTeed ceiling products comply with the Collaborative for High Performance Schools (CHPS) standards.
- Some CertainTeed ceiling products reflect light and work well in architectural designs that promote daylighting; reductions in lighting density made possible by such designs can result in energy savings and greenhouse gas reductions.



CERTAINTEED CEILINGS PRODUCT CONTRIBUTIONS NAHB CREDITS **POSSIBLE** (Based on NAHB National Green Building Standard, published 2009) **POINTS** Resource Efficiency 601.7 No Site Applied Finishing Materials: Building materials or assemblies are utilized that do not require additional site-applied material for finishing. 604.1 Recycled-content Materials: Use recycled-content building materials for two minor and/or two major components of the building with a recycled content of 25% or greater. 605.3 Construction Materials are Recycled Offsite: Construction materials such as wood, cardboard, metals, drywall, plastic, etc., are recycled offsite. 608.1 Locally Available, Indigenous Materials: Use indigenous materials for major elements of the building.

LEED-H CREDITS (Based on LEED-H January 2008)

POSSIBLE POINTS

Materials & Resources

Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials): Use products that are environmentally preferable.

Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials—Local): Use products that are extracted, processed and manufactured within 500 miles of home.

Waste Management (credit 3.2): Divert waste generated from construction ctivities from landfills and incinerators. (CertainTeed Ceilings' acoustical panel ecovery rogram provides a mechanism for builders to return old ceiling panels and scrap aterials from installation to CertainTeed for recycling.)







LEED-NC CREDITS

POSSIBLE POINTS

Energy & Atmosphere

Minimum Energy Performance (prerequisite 2): Establish minimum level of building energy efficiency per ASHRAE/IESNA Standard 90.1-2004.

Optimize Energy Performance (credit 1): Lighting fixture density may be reduced through use of ceiling panels with high light reflectance.

Materials & Resources

Construction Waste Management (credit 2.1 and 2.2): CertainTeed Ceilings' acoustical panel recovery program allows the recycling of certain ceiling panels removed for replacement during building renovation.

Recycled Content (credit 4.1 and 4.2): CertainTeed Ceilings offers a number of high recycled content products (both pre-consumer and post-consumer). Details on a product-by-product basis are available.

Regional Materials (credit 5.1 and 5.2): CertainTeed ceilings are manufactured at three facilities within the United States. Credit may be given if the project location is within 500 miles of the manufacturing facility. Additional credit may be given if the project location is within 500 miles of the recovered materials location.

Rapidly Renewable Materials (credit 6): Some CertainTeed ceiling products are manufactured using 6-10% cornstarch (by weight) as a raw material.

Daylight and Views (credit 8.1): CertainTeed ceiling panels with high light reflectance may allow daylighting to go farther into the finished space.





Understanding the role of CertainTeed Gypsum in meeting Green Building Standards

CertainTeed Gypsum operates its manufacturing facilities with a responsible and environmentally conscious ethic that includes reclamation, preservation of natural resources, recycling and waste management.

All of the face and back paper used on our gypsum board products is made from post-consumer recycled paper, and several CertainTeed Gypsum plants use synthetic gypsum, a raw material derived from flue gas scrubbing at coal-fired power plants. When combined with the recycled paper, this yields a total recycled content of up to 99% for ProRoc® gypsum board. Other plants have implemented programs that incorporate approximately 20% post-consumer gypsum board construction waste into production along with natural gypsum.

Gypsum board product innovation is also carried out with a focus on environmental responsibility; research and development emphasize minimizing environmental impacts to the greatest extent possible.

green facts:

- > CertainTeed Gypsum is committed to resource conservation:
- The face and back paper used for our gypsum board consists of 100% recycled paper.
- Synthetic gypsum, derived as a by-product of the desulphurization of flue gases at coal-fired power plants, is used at plants where sources are available.
- The total recycled content is 99% for CertainTeed Gypsum wallboard products using synthetic gypsum.
- Several of our other plants are incorporating approximately 20% post-consumer gypsum board construction waste into their production processes. In addition, in-plant scrap is recycled back into the process.

- > Our gypsum board, finishing compound and joint tape manufacturing locations can provide regional material coverage throughout North America.
- > Although green building rating systems do not currently address emissions for all building materials and their effects on indoor air quality, finished CertainTeed gypsum board products have very low reportable VOCs and will not affect indoor air quality.
- > ProRoc[®] Moisture and Mold Resistant Gypsum Board with M2Tech[™] is specially formulated for applications where enhanced moisture and mold resistance is preferred.
- > GlasRoc® Sheathing and Tile Backer are paperless moisture and mold resistant products.



CERTAINTEED GYPSUM PRODUCT CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS
Resource Efficiency	
04.1 Recycled-content Materials: Use recycled-content building materials for two ninor and/or two major components of the building with a recycled content of 25% regreater.	2
08.1 Locally Available, Indigenous Materials: Use indigenous materials for major lements of the building.	
09.1 Use LCA to Determine Most Environmentally Preferable Material: A more invironmentally preferable product or assembly is selected for an application based in the use of a Life Cycle Assessment (LCA) tool compliant with ISO 14044 or other ecognized standards that compare the environmental impact of building materials, assemblies or the whole building.	
10.1 Plant is ISO 14001 Certified: Product manufacturer's operation and business ractices include environmental management system concepts, and the product facility ISO 14001 certified or equivalent. The aggregate value of the building products from 50 14001 certified or equivalent production facilities is 1% or more of the total estimated uilding materials cost.	1-
unung materiais cost.	

LEED-H CREDITS (Based on LEED-H January 2008)

POSSIBLE POINTS

Materials & Resources

Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials): Use products that are environmentally preferable.

Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials—Local): Use products that are extracted, processed and manufactured within 500 miles of home.



0.5



POSSIBLE POINTS

Materials & Resources

Construction Waste Management (credit 2.1): Recycle and/or salvage at least 50% of non-hazardous construction and demolition debris.

Construction Waste Management (credit 2.2): Recycle and/or salvage at least 75% of non-hazardous construction and demolition debris.

Recycled Content 10% (credit 4.1): Use materials with recycled content such that the sum of post-consumer recycle content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project.

Recycled Content 20% (credit 4.2): Use materials with recycled content such that the sum of post-consumer recycle content plus one-half of the pre-consumer content constitutes an additional 10% beyond MR Credit 4.1 (total of 20%, based on cost) of the total value of the materials in the project.

Regional Materials 10% (credit 5.1): 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% (based on cost) or the total materials value.

Regional Materials 20% (credit 5.1): Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for an additional 10% beyond MR Credit 5.1 (total of 20%, based on cost) or the total materials value.















Insulation

CertainComfort.





CertainTeed insulation products improve building energy efficiency and reduce building energy consumption for the life of the structure. As a result, they help conserve nonrenewable energy sources, decrease dependence on foreign oil and lower greenhouse gas emissions. In addition, the recycled content of CertainTeed fiber glass insulation meets the EPA Recovered Material Guideline for fiber glass products, 30-40% consisting of pre-consumer and post-consumer glass cullet.

CertainTeed insulation is GREENGUARD® Certified. CertainTeed fiber glass insulation has been certified by the GREENGUARD Environmental Institute and meets the GREENGUARD standards for low Volatile Organic Compound (VOC) emissions, including formaldehyde.



reen facts

- > A typical pound of fiber glass insulation saves 12 times as much energy in its first year in place as the energy used to produce it.
- > All CertainTeed insulation products improve building energy efficiency, helping to lower energy costs throughout the life of the structure.
- > All fiber glass insulation products improve acoustical performance and improve comfort of buildings.
- > CertainTeed fiber glass insulation lasts for the life of the building, with no maintenance required.
- > CertainTeed fiber glass insulation is currently made with an average of 35% recycled glass.
- > CertainTeed DryRight fiber glass insulation and MemBrain smart vapor retarder help keep moisture out of wall cavities, reducing the risk of damaging mold growth and helping to maintain good indoor air quality.

- > CertainTeed fiber glass residential and commercial insulation products are GREENGUARD Children & Schools Certified, ensuring very low or no emissions of volatile organic compounds (VOCs).
- > CertainTeed CertaSpray polyurethane spray foam insulation provides an effective air seal, which reduces energy loss and improves indoor air quality.
- > CertainTeed fiber glass insulation lasts for the life of the building, with no maintenance required.
- > The Building Science department works to educate building and design professionals about smart construction practices in order to improve energy efficiency and improve building performance.



CERTAINTEED INSULATION PRODUCT CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS	LEED-H CREDITS (Based on LEED-H January 2008)
Resource Efficiency		Innovation & Design
604.1 Recycled-content Materials: Use recycled-content building ma and/or two major components of the building with a recycled content of		Durability Management Process (credit 2): Contributes to durability moisture control.
608.1 Locally Available, Indigenous Materials: Use indigenous mater of the building.	rials for major elements	Energy & Atmosphere
609.1 Use LCA to Determine Most Environmentally Preferable Mater environmentally preferable product or assembly is selected for an appli	_	ENERGY STAR Labeled Home (credit 1.2): Exceed requirements of for Homes; home must be third-party inspected.
of a Life Cycle Assessment (LCA) tool compliant with ISO 14044 or oth that compare the environmental impact of building materials, assemblie		Insulation (credit 2.2): Install above code insulation that exceeds the International Energy Conservation Code (IECC) requirements by at least
610.1 Plant is ISO 14001 Certified: Product manufacturer's operation include environmental management system concepts, and the product	t facility is ISO 14001	meets at least Grade 1 specifications (per National Home Energy Rational Materials & Resources
certified or equivalent. The aggregate value of the building products fro or equivalent production facilities is 1% or more of the total estimated by	1 10	Environmentally Preferable Products (credit 2.2/Environmentally Pr
Energy Efficiency		Materials): Use products that are environmentally preferable.
702.2 Energy Cost Performance: Energy efficiency features are imple energy cost performance that exceeds ICC IECC by 15-60%.	emented to achieve 30- 120	Environmentally Preferable Products (credit 2.2/Environmentally Pr Materials — Local): Use products that are extracted, processed and within 500 miles of home.
703.1.1 Building Envelope: Total building thermal envelope UA improvement that required by IECC. Insulation must receive a grade 1 rating.	ved by 10-20% over 10-36	Environmentally Preferable Products (credit 2.2/Emission Specifica products that comply with State of California, DHS, "Practice for Test"
703.1.2 Building Envelope — Insulation Grade: Insulation is graded a achieve grade 1 or 2. Points will not be awarded if already awarded un		from Building Materials Using Small Chambers."
703.2.1 Insulation and Air Sealing: Insulation and air sealing is installe all NAHB National Green Building Standard requirements.	ed in accordance with 3-15	
703.5.4.1 Hot Water Piping Insulation (Minimum R-4): Hot water pipe a minimum of R-4.	es are insulated to	
Indoor Environmental Quality		
901.11 Insulation Meets Emissions Standards: Formaldehyde emissi materials are in accordance with CDPH 01350, as certified by a third p such as GREENGUARD Environmental Institute's Children and Schools Program or the Scientific Certification Systems Indoor Advantage Gold	party program, s Certification	
903.5.2 Cold Water Piping Insulation (Minimum R-4): Cold water pip spaces are insulated to a minimum of R-4 with pipe insulation or other adequately prevents condensation.		
903.6 (1) HVAC System is Insulated to R-6: All HVAC ducts, plenums unconditioned attics, basements and crawlspaces are insulated to a mair supplies to ventilation systems are insulated to a minimum of R-6.		
903.6 (2) HVAC System is Insulated to R-8: All HVAC ducts, plenums unconditioned attics, basements and crawlspaces are insulated to a mair supplies to ventilation systems are insulated to a minimum of R-8.		

LEED-H CREDITS (Based on LEED-H January 2008)	POSSIBLE POINTS
Innovation & Design	
Durability Management Process (credit 2): Contributes to durability of home interior moisture control.	3
Energy & Atmosphere	
ENERGY STAR Labeled Home (credit 1.2): Exceed requirements of ENERGY STAR for Homes; home must be third-party inspected.	1-3-
Insulation (credit 2.2): Install above code insulation that exceeds the 2004 International Energy Conservation Code (IECC) requirements by at least 5% and meets at least Grade 1 specifications (per National Home Energy Rating Standards).	2
Materials & Resources	
Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials): Use products that are environmentally preferable.	0.5
Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials — Local): Use products that are extracted, processed and manufactured within 500 miles of home.	0.5
Environmentally Preferable Products (credit 2.2/Emission Specifications): Use products that comply with State of California, DHS, "Practice for Testing of VOCs from Building Materials Using Small Chambers."	0.5



POSSIBLE POINTS

Energy & Atmosphere

Minimum Energy Performance (prerequisite 2): Establish minimum level of building energy efficiency per ASHRAE/IESNA Standard 90.1-2004. Insulation is a necessary component to meet this requirement.

Optimize Energy Performance (credit 1): Achieve increasing levels of building energy performance above required minimum performance standards. Additional higher R-Value insulation installed in building envelope can help achieve from 1 to 10 points depending on percentage increase of energy efficiency compared to a base case building.

Materials & Resources

Recycled Content 10-20%: Use materials with recycled content that constitutes at least 10% (credit 4.1) or 20% (credit 4.2) based on the total cost of materials. CertainTeed fiber glass insulation contains pre- and post-consumer glass cullet that can contribute to these credits.

Regional Materials 10-20%: Use building materials/products that have been extracted, harvested or recovered as well as manufactured within 500 miles of project site for a minimum of 10% (credit 5.1) or 20% (credit 5.2) based on the total cost of materials. Depends on location of raw material extraction and manufacturing location in relation to project site.

Indoor Environmental Quality

Thermal Comfort: Design: Design HVAC system and building envelope to comply with ASHRAE Standard 55-2004. Insulation in the building envelope can contribute by helping maintain thermal comfort and humidity within comfort ranges.

Innovation & Design Process

Substantially exceed an LEED performance credit and/or apply strategies that demonstrate a comprehensive approach or quantifiable environmental and/or health benefits. Fiber glass products can contribute to innovation credits for acoustical performance with innovative new products, such as MemBrain™ Smart Vapor Retarder, that improve building assembly performance.









CertainTeed supports sustainable building and manufacturing practices with our comprehensive line of environmentally friendly fence, railing and deck products. CertainTeed fence, railing and deck is 99% recyclable and does not require chemical treatment or painting. Our composite railing is made of 40-75% recycled material, and our vinyl products contain at least 10% internally recycled material. In addition, CertainTeed fence, railing and deck products feature a long life span and low maintenance, which helps to conserve natural resources.

Certain Durability.

Fence, Railing and Deck

> CertainTeed fence, railing and deck products are 99% recyclable.

- > Our composite railing is made of 40-75% recycled material.
- > Our vinyl fence, railing and deck products contain at least 10% internally recycled materials.
- > CertainTeed's vinyl fence, railing and deck products feature a minimum 30-year product life and low maintenance.
- > CertainTeed's composite products feature a minimum 25-year product life and low maintenance.
- > None of our fence, railing and deck products require chemical treatment or painting.
- > All CertainTeed fence, railing and deck products are non-porous, and will not develop mold or rot.

- > Our fence, railing and deck manufacturing facility in Buffalo, New York, is built on a brownfield site and uses 100% hydropower.
- > The Buffalo plant uses a closed loop water system that saves more than 372,000,000 gallons of water per year. Water used in the manufacturing process is self-contained and re-used; it is not released into the environment.
- > CertainTeed has a strong recycling program that includes cardboard, paper, oil, metals (i.e., steel and aluminum), plastics and wood.



CERTAINTEED FENCE, RAILING AND DECK PRODUCT CONTRIBUTIONS

NAHB CREDITS Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS
esource Efficiency	
1.7 No Site Applied Finishing Materials: Building materials or assemblies a utilized that do not require additional site-applied material for finishing.	2
2.8 Termite-resistant Materials: Use termite-resistant construction materials propriate for the level of termite infestation probability as defined by the NAHB tional Green Building Standard.	2
4.1 Recycled-content Materials: Use recycled-content building materials for tw nor and/or two major components of the building with a recycled content of 25% greater.	
6.3 Manufacturing Energy: Materials used for major components of the building a manufactured using a minimum of 33% of the primary manufacturing process or rived from renewable sources, combustible waste sources or renewable energy edits (RECs).	_
8.1 Locally Available, Indigenous Materials: Use indigenous materials for major ements of the building.	or

LEED-H CREDITS **POSSIBLE** (Based on LEED-H January 2008) **POINTS** Materials & Resources Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials): Use products that are environmentally preferable.

(Based on LEED-NC Version 2.2)

POSSIBLE POINTS

Materials & Resources

LEED-NC CREDITS

Recycled Content 10% (credit 4.1): Use materials with recycled content that constitutes at least 10% based on cost of total value of materials in project.

Recycled Content 20% (credit 4.2): Use materials with recycled content that constitutes at least 20% based on cost of total value of materials in project.







FiberCement Siding and Trim CertainColor.

Understanding the role of CertainTeed FiberCement Siding, Soffit and 7/16" Trim in meeting Green Building Standards

In addition to being durable and low maintenance, CertainTeed FiberCement Siding and Trim products are environmentally sustainable. Our proprietary formula includes fly ash, providing the green benefits of recycled material. After several years of research and development, this new formulation contains more than 30% post-industrial recycled material.

Because of the enhanced green component of fly ash, CertainTeed uniquely contributes to LEED project certification points in the Materials and Resources category.

reen facts

> Contains more than 30% post-industrial recycled material in the form of fly ash.

- > Fly ash is a post-industrial by-product of electric generation at coal-fired facilities.
- > CertainTeed is committed to resource conservation:
- Our manufacturing facilities recycle the water used in our plants, resulting in a savings of more than 1.5 billion gallons per year.
- The majority of wood fiber pulp used in our fiber cement products is supplied from sustainably managed forests.
- By using fly ash in our product, over 50,000 tons of this material are diverted from landfills each year.
- > Fly ash comes in many varieties. The type used in CertainTeed's fiber cement products allows the creation of a stable chemical matrix, resulting in optimum product performance.

- > Our innovative use of fly ash in our formulation has not only improved the strength and durability of our products, but has also resulted in a more flexible and easy to install product, as compared to the competition.
- > Fly ash has not changed our fiber cement products' superior paintability properties. We continue to use our FiberTect® sealant on our entire product line.
- > This new formulation has ICC Building Code approval (reference report #ESR-1668).
- > As a result of this innovation, we are able to offer a lighter weight board without sacrificing quality and integrity. Boards made with fly ash are about 5% lighter than our old formulation, which translates into less energy used to produce and transport.

CertainTeed Building Responsibly

CERTAINTEED FIBERCEMENT SIDING, SOFFIT AND 7/16" TRIM PRODUCT CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS
esource Efficiency	
11.7 No Site Applied Finishing Materials: Building materials or assemblies are lilized that do not require additional site-applied material for finishing. (ColorMax on)	(y) 2
22.8 Termite-resistant Materials: Use termite-resistant construction materials opropriate for the level of termite infestation probability as defined by the NAHB ational Green Building Standard.	2
14.1 Recycled-content Materials: Use recycled-content building materials for on minor and/or two major components of the building with a recycled content	1
08.1 Locally Available, Indigenous Materials: Use indigenous materials r major elements of the building.	

1(NTRIBUTIONS	
	LEED-H CREDITS (Based on LEED-H January 2008)	
	-	oducts (credit 2.2/Environmentally Preferable ots that are extracted, processed and manufactured



POSSIBLE POINTS

Materials & Resources

Recycled Content 10% (credit 4.1): Use materials with recycled content that constitutes at least 10% based on cost of total value of materials in project. CertainTeed FiberCement Siding contains pre-consumer materials that can contribute to these credits.

Recycled Content 20% (credit 4.2): Use materials with recycled content that constitutes at least 20% based on cost of total value of materials in project. CertainTeed FiberCement Siding contains pre-consumer materials that can contribute to these credits.

Regional Materials 10% (credit 5.1): Use building materials/products that have been extracted, harvested or recovered as well as manufactured within 500 miles of project site for a minimum of 10% based on cost of the total materials. Depends on location of project site.

Regional Materials 20% (credit 5.2): Use building materials/products that have been extracted, harvested or recovered as well as manufactured within 500 miles of project site for a minimum of 20% based on cost of the total materials. Depends on location of project site.

1











POSSIBLE

POINTS

Understanding the role of CertainTeed Foundations in meeting Green Building Standards

Along with providing superior drainage and protection against basement water infiltration, CertainTeed Form-A-Drain foundation lineals are manufactured from 100% pre- and post-consumer recycled PVC. This commitment to the use of recycled material diverts significant quantities of PVC from landfills. In addition, the use of recycled PVC reduces CO₂ emissions that would occur if these products were made from virgin PVC. Form-A-Drain also contributes to the home's overall indoor air quality by facilitating the dissipation of harmful radon gas. Because Form-A-Drain is used to form the foundation and remains in place after the concrete is poured, it can be configured to provide venting under the basement slab and around the perimeter of the foundation footing.

CertainTeed ThermaEZE concrete foundation products improve overall energy efficiency of poured concrete foundation walls. For superior foundation waterproofing, CertainTeed also offers Platon® Air Gap Waterproofing Membrane; this tough, durable, high-density polyethylene (HDPE) membrane contains up to 95% recycled content and provides superior moisture protection for foundation walls, floors and sub-slabs. When used in combination, Form-A-Drain, ThermaEZE and Platon create a highly efficient foundation insulation and waterproofing system that provides energy efficiency, long-term durability and moisture protection.



e n f

Foundations

CertainInnovation.

- > Form-A-Drain lineals are manufactured from 100% pre- and post-consumer PVC, including common post-consumer containers such as shampoo bottles. The overall pre- and post-consumer recycled content of Form-A-Drain system components is 92%.
- > CertainTeed diverts millions of pounds/year of PVC from landfills by recycling this material into our product formulation for Form-A-Drain.
- > In addition to landfill waste reduction, the use of recycled PVC in our product reduces the release of CO₂ from the extraction and processing of raw materials that are used to create virgin PVC.
- > The Form-A-Drain product reduces waste generated on the jobsite and saves time and money by eliminating the need to install, remove and dispose of conventional wood footing forms.

- > CertainTeed is committed to resource conservation. Our manufacturing facility in McPherson, Kansas has a comprehensive recycling program with a goal of zero waste disposed in a landfill, and we use a closed loop process to recycle cooling water in the manufacturing process.
- Indoor environmental quality is enhanced by Form-A-Drain and Platon since these products provide drainage and moisture control in the basement. Form-A-Drain is also an effective radon collection system.
- > ThermaEZE concrete foundation insulation contributes to improved overall energy efficiency, and is an ENERGY STAR insulation product.
- Platon is manufactured with up to 95% recycled high-density polyethylene (HDPE). HDPE plastic can be recycled from milk and other beverage containers.



CERTAINTEER FOUNDATIONS PROPRIET CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS	LEED-H CREDITS (Based on LEED-H January 2008)	
PRM-A-DRAIN		FORM-A-DRAIN	
esource Efficiency		Innovation and Design	
02.3.2 Install Perimeter Drain: Interior and exterior foundation perimeter and drain pipe is sloped to discharge to daylight, drywell or sump pit.	drains are installed	Durability Management Process (credit 2): Contributes to duplan will be verified by a third-party Green Rater to earn credits	
4.1 Recycled-content Materials: Use recycled-content building mater two major components of the building with a recycled content of 25% or		Indoor Environmental Quality	
607.1 Resource-efficient Materials: Products containing fewer materials are used to achieve the same end-use requirements as conventional products.		Radon Protection (credit 9): If home is located in EPA Zone 1, design and build home with radon resistant construction techniques (required). If home is located outside EPA Zone 1, build home with radon resistant construction techniques.	
8.1 Locally Available, Indigenous Materials: Use indigenous materia the building.	als for major elements	Zone 1, build nome with radom esistant construction techniqu	ues.
ndoor Environmental Quality			
02.3 Radon Control: Radon control measures are in accordance with adon Zone.	ICC IRC for each	THERMA-EZE	
ERMA-EZE		Energy and Atmosphere	
esource Efficiency		ENERGY STAR Labeled Home (credit 1): Improve the overall	0,
08.1 Locally Available, Indigenous Materials: Use indigenous materia	als for major elements	performance of home by meeting or exceeding the performance ENERGY STAR home.	or an
the building.		Insulation (credit 2): Install insulation that exceeds or meets the	e R-value
nergy Efficiency	30	requirements listed.	
02.2 Energy Cost Performance: Energy efficiency features are implemergy cost performance that exceeds ICC IECC by 15-60%.	120		
03.1.1 Building Envelope: Total building thermal envelope UA improve at required by IECC. Insulation must receive a grade 1 rating.	ed by 10-20% over 10-36	PLATON	
03.2.1 Insulation and Air Sealing: Insulation and air sealing is installed	I in accordance with 3-15	Innovation and Design	
NAHB National Green Building Standard requirements.		Durability Management Process (credit 2): Contributes to dur	,
ATON		plan will be verified by a third-party Green Rater to earn credits in	this category.
esource Efficiency			
02.7 Termite Barrier: Continuous physical foundation termite barrier us w toxicity treatment is installed in geographical areas that have subterr festation potential.			
22.11 Enhanced Foundation Waterproofing: Enhanced foundation wate	rproofing is installed.		
04.1 Recycled-content Materials: Use recycled-content building mate			

LEED-NC CREDITS

POSSIBLE POINTS

FORM-A-DRAIN

POSSIBLE

POINTS

Materials and Resources

Recycled Content 10% (credit 4:1): Use materials with recycled content that contributes at least 10% based on cost of total value of materials in project. Form-A-Drain contains pre- and post-consumer materials that can contribute to these credits.

Recycled Content 20% (credit 4:2): Use materials with recycled content that contributes at least 20% based on cost of total value of materials in project. Form-A-Drain contains pre- and post-consumer materials that can contribute to these credits.

THERMA-EZE

Energy and Atmosphere

Minimum Energy Performance (prerequisite credit 2): Design the building envelope to maximize energy performance.

Optimize Energy Performance (credit 1): Achieve increasing levels of building energy performance above the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.

Indoor Environmental Quality

Thermal Comfort (credit 7.1): Provide a comfortable thermal environment that supports the productivity and well-being of building occupants.



PLATON

Materials and Resources

Recycled Content 10% (credit 4:1): Use materials with recycled content that contributes at least 10% based on cost of total value of materials in project. Platon contains pre- and post-consumer materials that can contribute to these credits.

Recycled Content 20% (credit 4:2): Use materials with recycled content that contributes at least 20% based on cost of total value of materials in project. Platon contains pre- and post-consumer materials that can contribute to these credits.





and/or two major components of the building with a recycled content of 25% or greater. 608.1 Locally Available, Indigenous Materials: Use indigenous materials for major elements





of the building.



Understanding the role of CertainTeed Polymer Siding, Vinyl Siding and Trim in meeting Green Building Standards

CertainTeed Cedar Impressions Siding, Vinyl Siding and Restoration Millwork are low maintenance exterior cladding and trim materials. They require no painting or caulking and only occasional washing with soap and water, thus contributing to the sustainability of any project.

Some of these products contain up to 80% post-consumer and post-industrial recycled content, thus contributing to the Environmentally Preferred Products category within USGBC's LEED-H standard. Using CertainTeed Vinyl Siding, Cedar Impressions Siding and Restoration Millwork trim also offers opportunities for building professionals to increase their projects' sustainability while maximizing possible LEED and NAHB certification points.



The insulated core of CedarBoards™ siding can help meet the performance guidelines of an ENERGY STAR®

> Contains up to 80% post-consumer and post-industrial recycled material.

- > Life cycle analysis tools such as BEES show vinyl siding to have a lower environmental impact than a majority of cladding options.
- > Installation of Cedar Impressions Siding, Vinyl Siding and Restoration Millwork eliminates the need for paint and caulk, decreasing maintenance and the projects' environmental impact.
- > The majority of raw materials used to manufacture our vinyl products are shipped by rail, decreasing emissions and the need for over-the-road transportation.
- > Unlike a majority of cladding choices, Cedar Impressions Siding, Vinyl Siding, and Restoration Millwork are recyclable. CertainTeed is leading an initiative to take back post-consumer siding from builders

- and manufactured housing plants, creating a "cradle to cradle" system that will close the loop on manufacturing our vinyl products.
- > The manufacturing process used by vinyl and polymer producers is less energy and resource intensive than that used by other cladding choices such as brick and stucco.
- > Products such as CertainTeed's CedarBoards™ insulated siding and Triple 3-1/3 soffit can help increase a project's energy efficiency.
- > Almost 100% of raw material inputs are used in the manufacturing process of CertainTeed's Cedar Impressions Siding, Vinyl Siding, and Restoration Millwork product lines, practically eliminating landfill waste from manufacturing these products.

CertainTeed Building Responsibly

CERTAINTEED POLYMER SIDING, VINYL SIDING AND TRIM PRODUCT CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS	LEED-H CREDITS (Based on LEED-H January 2008)
Resource Efficiency		Materials & Resources
601.7 No Site Applied Finishing Materials: Building materials or assemble that do not require additional site-applied material for finishing.	ies are utilized 2-5	Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials): Use products that are environmentally preferable.
602.8 Termite-resistant Materials: Use termite-resistant construction mat appropriate for the level of termite infestation probability as defined by the I Green Building Standard.	7 6	Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials—Local): Use products that are extracted, processed and manufactured within 500 miles of home.
604.1 Recycled-content Materials: Use recycled-content building material minor and/or two major components of the building with a recycled content greater. <i>(CedarBoards only)</i>		Energy & Atmosphere ENERGY STAR Labeled Home (credit 1.2): Exceed requirements of ENERGY
605.3 Construction Materials are Recycled Offsite: Construction material wood, cardboard, metals, drywall, plastic, etc., are recycled offsite.	als such as 3	STAR for Homes; home must be third-party inspected (CedarBoards insulated siding only).
608.1 Locally Available, Indigenous Materials: Use indigenous materials elements of the building.	for major 2	
609.1 Use LCA to Determine Most Environmentally Preferable Material: environmentally preferable product or assembly is selected for an application the use of a Life Cycle Assessment (LCA) tool compliant with ISO 1404 recognized standards that compare the environmental impact of building nassemblies or the whole building.	on based 4 or other	
Energy Efficiency		
702.2 Energy Cost Performance: Energy efficiency features are implement energy cost performance that exceeds ICC IECC by 15-60%. (CedarBoard)		
703.1.1 Building Envelope: Total building thermal envelope UA improved over that required by IECC. Insulation must receive a grade 1 rating. (Ceda	1225	



POSSIBLE POINTS

Materials & Resources

Recycled Content 10% (credit 4.1): Use materials with recycled content that constitutes at least 10% based on cost of total value of materials in project.

Recycled Content 20% (credit 4.2): Use materials with recycled content that constitutes at least 20% based on cost of total value of materials in project.

Regional Materials 10% (credit 5.1): Use building materials/products that have been extracted, harvested or recovered as well as manufactured within 500 miles of project site for a minimum of 10% based on cost of the total materials. Depends on location of project site.

Regional Materials 20% (credit 5.2): Use building materials/products that have been extracted, harvested or recovered as well as manufactured within 500 miles of project site for a minimum of 20% based on cost of the total materials. Depends on location of project site.

Energy & Atmosphere

Optimize Energy Performance (credit 1): Demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2004 by a whole building project simulation using the Building Performance Rating Method (CedarBoards insulated siding only).









POSSIBLE

POINTS



Understanding the role of CertainTeed Roofing in meeting Green Building Standards

Pre- and post-consumer recycled content accounts for a significant percentage of the materials used to manufacture many CertainTeed roofing products. This content includes slag, stone granules, corrugated mixed paper and sludge, and not only reduces landfill waste, but also cuts down on the release of greenhouse gases that would occur if virgin materials were processed to manufacture these products.

Another aspect of CertainTeed Roofing's commitment to the environment can be seen in the amount of manufacturing waste provided to companies outside CertainTeed—for example, asphalt-coated waste from shingle production is recycled and used in road construction. Recycled content is also integrated into much of our product packaging material.



green facts:

- > Many CertainTeed roofing products are manufactured with pre- and post-consumer recycled content including slag, stone granules, corrugated mixed paper and sludge. The overall pre- and post-consumer recycled content of our roofing products is between 1-89%. Integrating these materials into our products reduces landfill waste and carbon emissions.
- > CertainTeed diverts over 250,000 tons/year of slag, stone granules, corrugated mixed paper and sludge from landfills by recycling this material into our products.
- > In addition to landfill waste reduction, the use of recycled materials in our products reduces the release of CO₂ from the extraction and processing of virgin raw materials that are used to manufacture the roofing products.

- > CertainTeed is committed to resource conservation. Our roofing manufacturing facilities recycle close to 90% of the production waste into asphalt materials used for the construction of roads. We also integrate recycled content into many of our packaging materials including corrugated rolls and kraft paper.
- > CertainTeed produces a line of low and steep slope roofing products that help to reduce energy costs and overall CO₂ emissions from buildings. Our CoolStar™ and XT™25 AR Star White products are ENERGY STAR and Cool Roof Rating Council certified, helping to lower building cooling costs by reflecting the sun's rays away from the building roof, which lowers rooftop and attic temperatures.

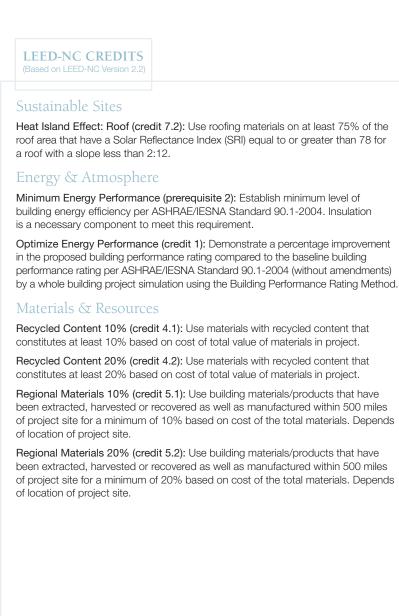
CertainBeauty.



CERTAINTEED ROOFING PRODUCT CONTRIBUTIONS

NAHB CREDITS (Based on NAHB National Green Building Standard, published 2009)	POSSIBLE POINTS
Resource Efficiency	
02.13 Roof Surfaces—ENERGY STAR or Cool Roof Council Certified: a minimum of 90% of roof surfaces are constructed of products that are (1) a accordance with the ENERGY STAR or Cool Roof Council certification or rr (2) a green roof system.	equivalent,
04.1 Recycled-content Materials: Use recycled-content building materials wo minor and/or two major components of the building with a recycled conf 25% or greater.	
08.1 Locally Available, Indigenous Materials: Use indigenous materials or major elements of the building.	2
Energy Efficiency	
02.2 Energy Cost Performance: Energy efficiency features are implemented nergy cost performance that exceeds ICC IECC by 15-60%.	d to achieve 30
03.1.1 Building Envelope: Total building thermal envelope UA improved by 0-20% over that required by IECC. Insulation must receive a grade 1 rating	
	10.

LEED-H CREDITS (Based on LEED-H January 2008)
Energy & Atmosphere ENERGY STAR Labeled Home (credit 1.2): Exceed requirements of ENERGY STAR for Homes; home must be third-party inspected.
Materials & Resources
Environmentally Preferable Products (credit 2.2/Environmentally Preferable Materials—Local): Use products that are extracted, processed and manufactured within 500 miles of home.



POSSIBLE

POINTS



POSSIBLE

POINTS

CertainTeed respects the environment through the responsible development of sustainable building products and systems.



ASK ABOUT OUR OTHER CERTAINTEED PRODUCTS AND SYSTEMS:

EXTERIOR: ROOFING • SIDING • WINDOWS • FENCE • RAILING • TRIM • DECKING • FOUNDATIONS • PIPE **INTERIOR:** INSULATION • GYPSUM • CEILINGS

CertainTeed Corporation P.O. Box 860 Valley Forge, PA 19482 Professional: 800-233-8990 Consumer: 800-782-8777 www.certainteed.com

