

Contributions to LEED®-CI



RACE

Minimize impact. Maximize investment. RACE® is the durable and attractive solution for minimizing impact on the environment—from its manufacturing process that preserves the quality of air to inclusion of recycled content. And because it's made to last, your investment is designed with the environment in mind. **RACE helps achieve LEED-CI credits.** RACE products may contribute to the individual prerequisites and credits of LEED CI. Because LEED is a holistic building rating system and sustainable design guideline, there is no such thing as LEED-certified products—only ways of using and applying products to support the criteria.

HAWORTH®
change by design

RACE Contributions to LEED-CI

Air Quality. The materials in RACE contribute to better indoor air quality. For example: Glues and finishes do not contain volatile organic compounds (VOCs). RACE is GREENGUARD™ certified as low-emitting for formaldehyde, VOCs and aldehydes. Metal parts are painted using powder coating, an environmentally clean technology that doesn't use solvents. Overspray is captured and reused to minimize waste.

Recycled Content. RACE is constructed primarily of steel with a range of 30-96% recycled content. Wheatboard, a 100% recycled content, rapidly renewable agrifiber product, can be ordered as a core material for worksurfaces. Fabrics with 100% recycled content are also available for RACE. This combination of materials makes RACE one of the highest recycled content system furniture products in the industry.

Design for the Environment (DfE). RACE is an extremely strong and durable system that provides many years of reliable service for an excellent return on investment. RACE is 25 years young. Some customers who bought RACE when it was first introduced are still using it today. Designing product that maximizes useful life is one of many strategies related to Design for the Environment (DfE).

Contributing to LEED-CI. In some cases RACE contributes directly to individual LEED points, but in other cases can only help meet the overall intent. There are relatively few instances where selection of any one manufacturer's product will lead directly to acquisition of a LEED point(s). The following product information highlights direct impacts as well as application tips and strategies to help you maximize the contribution of points toward your project's LEED certification.

RACE Contributions to LEED-CI

LEED-CI Credit	Intent/Requirement	RACE Contribution
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ENERGY AND ATMOSPHERE

Optimize Energy Performance – Lighting Power
Credit 1.1 (1-3 pts)

Intent: Achieve increasing levels of energy conservation beyond the referenced standard to reduce environmental impacts associated with excessive energy use.

Requirement: Reduce connected lighting power density below that allowed by ASHRAE/IESNA Standard 90.1-2001(with all addenda)* to 15% below the standard (1 pt), 25% below the standard (2 pts), or 35% below the standard (3 pts)

- RACE lighting solutions utilize high-efficiency electronic ballasts and energy-efficient technologies such as T5 and T8 lamps.

Optimize Energy Performance – HVAC
Credit 1.3 (1-2 pts)

Intent: Achieve increasing levels of energy conservation beyond the prerequisite standard to reduce environmental impacts associated with excessive energy use.

Requirement:

OPTION 1

- Equipment efficiency – Install HVAC systems which comply with the efficiency requirements as outlined in the LEED-CI rating system document. (1pt)
- Appropriate zoning and controls – Zone tenant fit out of spaces to meet the requirements as outlined the LEED-CI rating system document. (1pt)

OPTION 2

- Demonstrate performance criteria are 15% better than minimum compliance with ASRHAE/IESNA 90.1-2001(with all addenda)*. (1 pt)

OR

- Demonstrate performance criteria are 30% better than minimum compliance with ASRHAE/IESNA 90.1-2001(with all addenda)*. (1 pt)

- RACE does not directly contribute to the point but can help lower energy consumption for HVAC and increase physical comfort. The system's open design allows for efficient airflow, reducing trapped air and minimizing hot and cold spots.

* ASHRAE/IESNA 90.1-2004 will become the referenced standard once available.

RACE Contributions to LEED-CI

LEED-CI Credit

Intent/Requirement

RACE Contribution

ENERGY AND ATMOSPHERE

Optimize Energy Performance – Equipment and Appliances
Credit 1.4 (1-2 pts)

Intent: Achieve increasing levels of energy conservation beyond the prerequisite standard to reduce environmental impacts associated with excessive energy use.

Requirement: For all ENERGYSTAR-eligible equipment and appliances in project, including appliances, office equipment, electronics and commercial food service equipment (but excluding HVAC, lighting, and building envelope products):

- 70% by rated-power, of ENERGYSTAR-eligible equipment and appliances shall be ENERGYSTAR-rated. (1 pt)
- 90% by rated-power, of ENERGYSTAR-eligible equipment and appliances shall be ENERGYSTAR-rated. (2 pts)

- RACE system products do not directly impact this point, but can assist indirectly as a platform for supporting ENERGYSTAR-rated products. The Power Base™ power distribution system available on RACE allows monitors, task lights, office equipment and other non-critical plug loads to be placed on a separate circuit which can be controlled by the building management system.

MATERIALS AND RESOURCES

Resource Reuse – Furniture and Furnishings
Credit 3.3 (1 pt)

Intent: Reuse building materials and products in order to reduce demand for virgin materials and reduce waste, thereby reducing impacts associated with the extraction and processing of virgin resources.

Requirement: Use salvaged, refurbished, or used furniture and furnishings for 30% of the total F&F budget.

- RACE is designed to allow easy disassembly and movement from one space to another. The ability to reuse furniture and furnishings significantly reduces F&F budgets for new spaces, with an equivalent decrease in resource demands.
- RACE is extremely durable and can be refurbished to extend the useful life of the product. Also, products such as if® brand worksurfaces, patterned glass inserts and X-series® storage can all be used with pre-existing RACE to update the look of a facility and enhance the function of existing product.

RACE Contributions to LEED-CI

LEED-CI Credit	Intent/Requirement	RACE Contribution
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MATERIALS AND RESOURCES

<p>Recycled Content Credit 4.1 and 4.2 (1-2 pts)</p>	<p>Intent: Increase demand for building products that incorporate recycled material, reducing impacts resulting from extraction and processing of virgin materials.</p> <p>Requirement: Use materials, including Division 12 (furniture and furnishings), with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10% -1 pt (or 20% - 2pts) of the total value of the materials in the project.</p>	<ul style="list-style-type: none"> RACE fabric pads are available in a broad array of 100% recycled polyester fabrics. RACE worksurfaces can be ordered with wheatboard¹ cores. Wheatboard is a 100% recycled content and rapidly renewable agrifiber material. Recycled content for typical RACE is listed below:
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RACE Recycled Content Examples	Total Recycled Content % BY WEIGHT	Post-Consumer Content % BY WEIGHT	Post-Industrial Content % BY WEIGHT	LEED RC (PC+1/2PI) % BY WEIGHT
RACE (typical cluster) standard product	43%	21%	22%	32%
RACE (typical cluster) w/ wheatboard core worksurfaces	58%	21%	37%	40%
RACE Main Beam 96"	39%	21%	18%	30%
RACE Universal Post	94%	57%	37%	76%
RACE Acoustical Pad Set 96"W x 14"H	38%	15%	23%	27%
RACE Main Beam Worksurface 24"D x 48"W w/ wheatboard core	81%	7%	74%	44%

<p>Regional Materials – 20% Manufactured Regionally Credit 5.1 (1 pt)</p>	<p>Intent: Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the regional economy and reducing the environmental impacts resulting from transportation.</p> <p>Requirement: Use a minimum of 20% of the combined value of construction and Division 12 (furniture and furnishings) materials and products that are manufactured regionally within a radius of 500 miles.</p>	<ul style="list-style-type: none"> RACE is produced in Holland and Douglas, Michigan, within a 500-mile radius of approximately 50% of the U.S. population. Credit contribution depends on the location of the project.
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¹ Wheatboard is currently a special order option for worksurface and drawer front core materials. Wheatboard will be available as a standard option core material for worksurfaces (instead of a special order material) by fourth quarter 2005.

RACE Contributions to LEED-CI

LEED-CI Credit	Intent/Requirement	RACE Contribution
MATERIALS AND RESOURCES		
Rapidly Renewable Materials Credit 6 (1 pt)	<p>Intent: Reduce the use and depletion of finite raw and long-cycle renewable materials by replacing them with rapidly renewable materials.</p> <p>Requirement: Use rapidly renewable construction and Division 12 (furniture and furnishing) materials and products, made from plants that are typically harvested within a ten-year or shorter cycle, for 5% of the total value of all materials and products used in the project.</p>	<ul style="list-style-type: none"> RACE worksurfaces can be ordered with wheatboard¹ cores. Wheatboard is a rapidly renewable and 100% recycled content agrifiber material.
Certified Wood Credit 7 (1 pt)	<p>Intent: Encourage environmentally responsible forest management.</p> <p>Requirement: When using new wood-based product and materials, use a minimum of 50% that are certified in accordance with the Forest Stewardship Council's (FSC) principles and criteria. Division 12 (furniture and furnishings) material value is included in the determination of the certified wood content.</p>	<ul style="list-style-type: none"> RACE veneer worksurfaces and storage drawer fronts are available in FSC-certified veneer. FSC chain-of-custody certificates are available upon request. Substitution of wheatboard for particleboard in RACE veneer worksurfaces and file and storage fronts reduces the wood content of a project (wheatboard is a non-wood agrifiber byproduct), increasing the impact of FSC woods specified, making it easier to achieve 50% FSC wood use.

INDOOR ENVIRONMENTAL QUALITY

Low-Emitting Materials – Furniture and Furnishings Credit 4.5 (1 pt)	<p>Intent: Reduce the quantity of indoor air contaminants that are odorous, potentially irritating and/or harmful to the comfort and well-being of installers and occupants.</p> <p>Requirement: All systems furniture and seating introduced into the project space that has been manufactured, refurbished or refinished within one year prior to occupancy must meet one of the requirements below:</p> <p>OPTION A</p> <ul style="list-style-type: none"> GREENGUARD Indoor Air Quality Certified <p>OPTION B</p> <ul style="list-style-type: none"> Indoor air calculations meet the criteria as stated in the LEED-CI Credit 4.5. 	<ul style="list-style-type: none"> RACE is GREENGUARD certified.
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RACE Contributions to LEED-CI

LEED-CI Credit

Intent/Requirement

RACE Contribution

INDOOR ENVIRONMENTAL QUALITY

**Controllability of Systems –
Lighting**
Credit 6.1 (1 pt)

Intent: Provide a high level of lighting system control by individual occupants or specific groups in multi-occupant spaces (e.g. classrooms or conference areas) to promote the productivity, comfort and well-being of building occupants.

Requirement: Provide lighting controls for at least 90% of occupants, enabling adjustments to suit individual task needs and preferences, AND all shared multi-occupant spaces where transient groups must share lighting controls.

- Individual task lights provide direct control of lighting levels. RACE system products are available with integrated task lighting solutions.

Daylight and Views
Daylight 75% (90%) of Spaces (1-2 pts)
Views for 90% of Seated Spaces (1 pt)
Credit 8.1, 8.2, 8.3

Intent: Provide the occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the tenant space.

Requirement: Credits 8.1, 8.2 – Achieve a minimum Daylight Factor of 2% (excluding all direct sunlight penetration) in 75% (1 pt) or 90% (2 pts) of all regularly occupied space. **Credit 8.3 –** Achieve direct line of sight to vision glazing for building occupants in 90% of all regularly occupied space. (1 pt)

- RACE's 120-degree planning creates open and organic spaces. RACE's open base lightens up open-plan layouts. Glass pads give a sense of enclosure without blocking light.
- Variation of panel heights, selection of vision glazing, use of negative space, and proper orientation of components provides access to daylighting and preservation of view corridors.

Intent and Requirement information is paraphrased from the U.S. Green Building Council publication "Green Building Rating System for New Construction and Major Renovations, Version 2.0". For exact wording consult the U.S.G.B.C. Web site at www.usgbc.org