

# USGBC LEED<sup>®</sup> CI 2009

## What is LEED<sup>®</sup>?

Leadership in Energy and Environmental Design [LEED] is a consensus-based program developed by the U.S. Green Building Council to define and document a standard that improves environmental and economic performance of commercial buildings using established and/or advanced industry principles, practices, materials and standards. It is a voluntary performance-oriented system where points are earned for satisfying the criteria.

To earn certification, a building project must meet certain prerequisites and performance benchmarks ["credits"] within each category. Although USGBC does not certify, promote, or endorse products of individual companies, products do play a role and can help projects with point achievement.

The choice of Mirage Floors can help contribute to fulfilling the requirements of each credit.

## Mirage, a commitment to Sustainable Building

From the very beginning, Mirage's corporate values and strategies have been geared toward sustainable development, even though the term itself was still largely unknown. Mirage is worried about the planet and its riches, want to contribute to community's economic development, and is more concerned than ever with securing the best possible quality of life for fellow citizens today and tomorrow.

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**LEED for Commercial Interiors** is the green benchmark for the tenant improvement market. It is the recognized system for certifying high-performance green interiors that are healthy, productive places to work; are less costly to operate and maintain; and have a reduced environmental footprint. LEED for Commercial Interiors gives the power to make sustainable choices to tenants and designers, who do not always have control over whole building operations.

USGBC LEED <sup>®</sup> CI 2009 Rating System				
Categories		Prerequisites	Credits	Points
SS	Sustainable Sites	0	3	21
WE	Water Efficiency	1	1	11
EA	Energy & Atmosphere	3	4	37
MR	Materials & Resources	1	7	14
IEQ	Indoor Environmental Quality	2	8	17
ID	Innovation and Design Process	0	2	6
RP	Regional Priority	0	1	4
<b>Total</b>		<b>7</b>	<b>26</b>	<b>110</b>

Mirage Engineered Floors Contribution to LEED <sup>®</sup> CI 2009		
Categories		Potential Contribution
SS	Sustainable Sites	0 point
WE	Water Efficiency	0 point
EA	Energy & Atmosphere	0 point
MR	Materials & Resources	<b>3 points</b>
IEQ	Indoor Environmental Quality	<b>2 points</b>
ID	Innovation and Design Process	<b>3 points</b>
RP	Regional Priority	<b>4 points</b>
<b>Total</b>		<b>Up to 12 points</b>

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## Mirage Engineered Floors Contribution to LEED<sup>®</sup> Canada-CI Version 1.0

Credits	Sustainable Strategies	Potential Points	Credit Relevance	Credits Requirements	Mirage Engineered Floors Contribution
MR 5	Regional Materials	1-2	Direct	<p><b>Option 1 (1 point):</b> Use a minimum of <b>20% of the combined value</b> of construction Division 12 (Furniture) materials and products that are manufactured regionally within a radius of 500 miles.</p> <p><b>Option 2 (2 points):</b> Meet the requirements for option 1. Use a minimum of <b>10% of the combined value</b> of construction Division 12 (furniture) materials and products <b>extracted, harvested or recovered</b>, as well as manufactured, within 500 miles of the project.</p>	<p>Depending on <b>Mirage's</b> providers and the project's location, <b>Mirage Engineered Floors</b> could contribute if the wood used satisfies the regional requirements of the credit (particularly for Eastern Canada provinces).</p> <p>Compliance percentage must be approved for a specific project. This percentage will be calculated on the overall weight of the product's components, according to the source of supply of <b>Mirage's</b> chosen suppliers.</p> <p>The harvesting site of the materials needs to be confirmed for each project, according to <b>Mirage</b> providers.</p> <p><b>Mirage's plants are located in Saint-Georges, Quebec.</b></p>

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Credits	Sustainable Strategies	Potential Points	Credit Relevance	Credits Requirements	Mirage Engineered Floors Contribution
MR 7	Certified Wood	1	Direct	When using new wood-based products and materials, use a minimum of <b>50%</b> that are certified in accordance with <b>Forest Stewardship Council's (FSC)</b> principles and criteria. Division 12 (furniture) material value is included on the determination of the certified wood content.	<p><b>Mirage Engineered Floors</b> made of <b>FSC certified Maple, Yellow Birch, Red Oak, White Oak, American Cherry, American Walnut and Hickory</b> wood species are complying with the requirements and contribute to this credit.</p> <p><b>FSC Certificate No: SW-COC-002199.</b></p> <p>Percentage of certified wood in the <b>Mirage Engineered Floors</b> is between <b>29%</b> and <b>41%</b> depending on the selected species.</p> <p>This result is calculated on the overall weight of the product's wood components vs total weight of FSC certified wood.</p> <p>In a LEED<sup>®</sup> project, <b>Mirage</b> can give the exact percentage of FSC wood in its product</p>
IEQ 3.2	Construction IAQ Management Plan: Before Occupancy	1	Indirect	<p>Develop an IAQ management plan and implement it after all finishes have been installed and the building has been completely cleaned before occupancy.</p> <ul style="list-style-type: none"> <li>- Option A: Flush-Out</li> <li>- <b>Option B: Air Testing</b></li> </ul>	<p><b>Mirage</b> encourages, through its choice of components for its products, the reduction of uncontrolled emissions outside of the project.</p> <p>According to BOA-FRANC's emission tests, <b>Mirage Engineered Floors</b> should contribute to compliance with the requirements of this credit if <b>Option B (Air Testing)</b> is used, because there is no added urea-formaldehyde resin used in this product.</p>

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Credits	Sustainable Strategies	Potential Points	Credit Relevance	Credits Requirements	Mirage Engineered Floors Contribution
IEQ 4.1	Low-Emitting Materials: adhesives and sealants	Not applicable	Direct	All adhesives, sealants and sealant primers used on the interior of the building (i.e., inboard side of the weatherproofing system and applied on-site) must comply with <b>South Coast Air Quality Management District (SCAQMD) Rule No. 1168</b> Volatile Organic Compound (VOC) limits. Wood flooring adhesives VOC limit is 100 g/L, since January 2005.	<p><b>Mirage Engineered Floors</b> made of <b>FSC certified Maple, Yellow Birch, Red Oak, White Oak, American Cherry, American Walnut and Hickory</b> wood species are complying with the requirements and contribute to this credit.</p> <p><b>FSC Certificate No: SW-COC-002199.</b></p> <p>Percentage of certified wood in the <b>Mirage Engineered Floors</b> is between <b>29%</b> and <b>41%</b> depending on the selected species.</p> <p>This result is calculated on the overall weight of the product's wood components vs total weight of FSC certified wood.</p> <p>In a LEED® project, <b>Mirage</b> can give the exact percentage of FSC wood in its product</p>
IEQ 4.2	Low-Emitting Materials: Paints and Coatings	Not applicable	Direct	<p>Paints and coatings used on the interior of the building (i.e., inboard side of the weatherproofing system an applied on-site) must comply with the following criteria as applicable to the project scope:</p> <p>Clear wood finishes, floor coatings, stains, primers, sealers and shellacs applied to interior elements must not exceed the VOC content limits established for those coating types in <b>South Coast Air Quality Management District (SCAMD) Rule 1113, Architectural Coatings</b>, effective January 1, 2004.</p>	<p>All sealers and clear wood finishes used for <b>Mirage Engineered Floors</b> are complying with the VOC content limits of South Coast Air Quality Management District (<b>SCAQMD) Rule No. 1113</b> (275 g/L, July 2007). VOC are between 0.2 and 6.1 g/L.</p> <p>However, sealers and finishes for <b>Mirage's</b> products are applied at the plant and not on site. They are therefore excluded from this credit's requirements.</p> <p>Moreover, <b>Mirage</b> is considering the same VOC limits for sealers and finishes even if they are applied at the plant, reducing the emissions inside of project buildings, another good practice of <b>Mirage</b>.</p>

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Credits	Sustainable Strategies	Potential Points	Credit Relevance	Credits Requirements	Mirage Engineered Floors Contribution
IEQ 4.3	Low-Emitting Materials: Flooring Systems	0	Direct	<p>All flooring must comply to one or other following options:</p> <p><b>Option 1:</b> All hard surface flooring must meet the requirements of the <b>Floorscore</b> standard (current as of the date of this rating system, or more stringent version) as shown with testing by an independent third party. Concrete, wood, bamboo, and cork finishes such as sealer, stain and finish must meet the requirements of <b>South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings</b>, effective January 1, 2004.</p> <p><b>Option 2:</b> All flooring products must meet the testing and products requirements of the California Department of Public Health Standard Practice for the testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.</p>	<p><b>Mirage Engineered Floors don't respect</b> all the requirements of this credit, as they are not FloorScore certified and have not been tested for tryouts.</p>
IEQ 4.4	Low-Emitting Materials: Composite Wood and Agrifiber Products	1	Direct	<p>Composite wood and agrifiber products used on the interior of the building must contain <b>no added urea-formaldehyde resins</b>.</p> <p><b>Laminating adhesives</b> used to fabricate on-site and shop-applied composite wood and agrifiber assemblies must <b>not contain added urea-formaldehyde resins</b>.</p>	<p><b>Mirage Engineered Floors can contribute</b> to this credit: the plywood used contains only phenol-formaldehyde resin.</p> <p><b>Laminating adhesives</b> also <b>comply</b> to this credit with <b>no urea-formaldehyde resins in Mirage Engineered Floors</b>.</p>

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Credits	Sustainable Strategies	Potential Points	Credit Relevance	Credits Requirements	Mirage Engineered Floors Contribution
ID 1	Innovation in Design Path 2	1-3	Direct	<p>An exemplary performance point can be awarded to projects</p> <ul style="list-style-type: none"> <li>- attaining <b>40%</b> of <b>Regional Materials</b> for <b>MR 5</b> credit.</li> <li>- attaining <b>95%</b> of <b>FSC-certified wood</b> for the <b>MR 7</b> credit.</li> </ul>	<p><b>Mirage Engineered Floors</b> can contribute to achieve a <b>40%</b> of regional material exemplary performance, depending on <b>Mirage</b> providers and the project's location.</p> <p><b>Mirage Engineered Floors</b> made of <b>FSC-certified Maple, Yellow Birch, Red Oak, White Oak, American Cherry, American Walnut and Hickory</b> wood species can also contribute to achieve a <b>95%</b> Certified Wood exemplary performance.</p> <p>To be identified according to project's strategies and propositions. <b>Mirage Engineered Floors</b> could participate in different innovation points.</p>
RP 1	Regional Priority	1-4	Direct / Indirect	<p>Earn <b>1 to 4 of the 6 Regional Priority</b> credits identified by the <b>USGBC Regional councils and chapters</b> for their importance.</p>	<p>Please refer to the Advantages and Aspects to Consider section of the Regional Priority credit.</p> <p>For a list of applicable credits, please refer on the USGBC website <a href="http://www.usgbc.org">www.usgbc.org</a>.</p>
<b>TOTAL</b>		<b>12</b>	<p><b>Mirage Engineered Floors can contribute to a total of twelve (12) possible points for a LEED® CI 2009 project.</b></p>		