



DINO FLEX Group Limited Partnership



LEED



GREEN BUILDING RATING SYSTEMS

LEED USGBC - Green Building Rating Systems

The United States Green Building Council (USGBC) created the Leadership in Energy and Environmental Design (LEED) Green Building system in an effort to provide a national standard for what constitutes a “green building.” Architects, designers, retail executives and facility managers, seeking to develop high-performance, sustainable buildings utilize it as a design guideline.

New Construction (NC)

LEED for New Construction and Major Renovations is designed to guide and distinguish high-performance commercial and institutional projects.

Existing Buildings: Operations & Maintenance (EB)

LEED for Existing Buildings: Operations & Maintenance provides a benchmark for building owners and operators to measure operations, improvements and maintenance.

Commercial Interiors (CI)

LEED for Commercial Interiors is a benchmark for the tenant improvement market that gives the power to make sustainable choices to tenants and designers.

Core & Shell (CS)

LEED for Core & Shell aids designers, builders, developers and new building owners in implementing sustainable design for new core and shell construction.

Schools

LEED for Schools recognizes the unique nature of the design and construction of K-12 schools and addresses the specific needs of school spaces.

Based on the LEED for New Construction rating system, it addresses issues such as classroom acoustics, master planning, mold prevention and environmental site assessment.

Homes

LEED for Homes promotes the design and construction of high-performance green homes.

LEED USGBC - Green Building Performance Criteria

The LEED rating systems promotes improved practices in the following credit categories:

- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality

A sixth category, Innovation and Design Process, rewards exceptional environmental performance or innovation over and above that explicitly covered in the basic LEED credits.

The rating system defines the requirements, by category (listed above), needed to achieve points under each area. Projects earn one or more points toward certification by meeting or exceeding each credit's technical requirements. Points compute to a final score that relates to one of four possible levels of certification: LEED Certified, LEED Silver, LEED Gold or LEED Platinum.

LEED is flexible enough to accommodate a wide range of green building strategies that best fit the constraints and goals of particular projects.

This chart summarizes the potential performance categories Dinoflex recycled rubber products may contribute to help your project attain the one (1) LEED point for each category.

Performance Category	Sub-Category	Credit	Rating System	
Sustainable Site	Landscaping	SS 2.2	Homes	<i>Limit use of turf in densely shaded areas</i>
	Landscaping	SS 2.3	Homes	<i>Limit use of conventional turf</i>
	Surface Water Management	SS 4.1	Homes	<i>Permeable lot - use of permeable paving</i>
	Storm-water Design	SS 6.1	NC; CI; EB; CS; Schools	
	Storm-water Management	SS 6.2	NC; CI; EB; CS; Schools	
Materials & Resources	Construction Waste Management	MR 2	NC; CI; EB; CS; Schools	
	Environmentally Preferable Products	MR 2.2	Homes	<i>Low emission flooring</i>
	Recycled Content	MR 4	NC; CI; EB; CS; Schools	<i>See chart</i>
	Regional Materials	MR 5	NC; CI; EB; CS; Schools	<i>Refer to map</i>
Indoor Environmental Quality	Low Emitting Adhesives / Sealers	EQ 4.1	NC; CI; EB; CS; Schools	
	SCS-1350 Low Emitting Flooring Systems	EQ 4.3 OPT 2	NC; CI; CS; Schools	<i>CA 01350 Compliant; FloorScore certification pending</i>
Innovation & Design	Innovation	ID 1.1	NC; CI; EB; CS; Schools	<i>*using interlocking products removes adhesive requirements</i>

USGBC and over 80 Pilot project teams are collaborating to create two new rating systems: LEED for Retail: New Construction, and LEED for Retail: Commercial Interiors – both are expected for market launch in the first half of 2009. The LEED for Retail Pilot recognizes the unique nature of retail design and construction projects and addresses the specific needs of retail spaces.

Sustainable Sites: Credit 2.2 - Landscaping

Basic Landscape Design (2 points). Meet the following requirements for all designed landscape softscapes:

- Any turf must be drought-tolerant.
- Do not use turf in densely shaded areas.
- Do not use turf in areas with a slope of 25% (i.e., 4:1 slope).
- Add mulch or soil amendments as appropriate.
- Mulch is defined as a covering placed around plants to reduce erosion and water loss and to help regulate soil temperature. In addition, upon decomposition, organic mulches serve as soil amendments. The type of mulch selected can affect soil pH.
- All compacted soil (e.g., from construction vehicles) must be tilled to at least 150 mm (6 inches).

Sustainable Sites: Credit 2.3 - Landscaping

Limit Conventional Turf (maximum 3 points, as specified in Table 3). Limit the use of conventional turf (including drought-tolerant turf), in the designed landscape softscapes. Potential Strategies and Technologies:

Design the project site to maintain natural stormwater flows by promoting infiltration. Specify vegetated roofs, pervious paving and other measures to minimize impervious surfaces. Reuse stormwater for non-potable uses such as landscape irrigation, toilet and urinal flushing, and custodial uses.

Table 3. Limited Conventional Turf

Percentage of designed landscape softscape area that is conventional turf	Points
41 - 60%	1
21 - 40%	2
20% or less	3

Sustainable Sites: Credit 4.1 - Surface Water Management

Permeable Lot (maximum 4 points).

Design the lot such that at least 70% of the built environment, not including area under roof, is permeable or designed to capture water runoff for infiltration on-site. Area that can be counted toward the minimum includes the following:

- Vegetative landscape (e.g., grass, trees, shrubs).
- Permeable paving, installed by an experienced professional. Permeable paving must include porous above-ground materials (e.g., open pavers, engineered products) and a 150-mm (6-inch) porous subbase, and the base layer must be designed to ensure proper drainage away from the home.
- Impermeable surfaces that are designed to direct all runoff toward an appropriate permanent infiltration feature (e.g., vegetated swale, on-site rain garden, or rainwater cistern). Limit Conventional Turf (maximum 3 points, as specified in Table 3). Limit the use of conventional turf (including drought-tolerant turf), in the designed landscape softscapes. Potential Strategies and Technologies:

Design the project site to maintain natural stormwater flows by promoting infiltration. Specify vegetated roofs, pervious paving and other measures to minimize impervious surfaces. Reuse stormwater for non-potable uses such as landscape irrigation, toilet and urinal flushing, and custodial uses.

Sustainable Sites: Credit 6.1 - Stormwater Design

Potential Strategies and Technologies: Design the project site to maintain natural stormwater flows by promoting infiltration. Specify vegetated roofs, pervious paving and other measures to minimize impervious surfaces. Reuse stormwater for non-potable uses such as landscape irrigation, toilet and urinal flushing, and custodial uses.

Sustainable Sites: Credit 6.2 - Stormwater Management

Potential Strategies and Technologies: Use alternative surfaces (e.g., vegetated roofs, pervious pavement, grid pavers) and nonstructural techniques (e.g., rain gardens, vegetated swales, disconnection of imperviousness, rainwater recycling) to reduce imperviousness and promote infiltration and thereby reduce pollutant loadings. Use sustainable design strategies (e.g., low-impact development, environmentally sensitive design) to create integrated natural and mechanical treatment systems such as constructed wetlands, vegetated filters and open channels to treat stormwater runoff.

Strategy: Dinoflex Exterior Recycled Rubber Surfacing - CushionWalk Pavers or NuVista Tiles

Porosity of:

CushionWalk Pavers = 2.3 fluid ounces per square inch of area per minute

NuVista Tiles = drained 4 litres of water in 306.71 seconds

Playground Tiles = 2.25" all black tile drained 4 litres of water in 319.56 seconds

Material & Resources: Credit 2

Construction Waste Management

Potential Strategies and Technologies: Establish goals for diversion from disposal in landfills and incineration facilities and adopt a construction waste management plan to achieve these goals. Consider recycling cardboard, metal, brick, mineral fiber panel, concrete, plastic, clean wood, glass, gypsum wallboard, carpet and insulation. Construction debris processed into a recycled content commodity that has an open market value (e.g., wood derived fuel [WDF], alternative daily cover material, etc.) may be applied to the construction waste calculation. Designate a specific area(s) on the construction site for segregated or comingled collection of recyclable materials, and track recycling efforts throughout the construction process. Identify construction haulers and recyclers to handle the designated materials. Note that diversion may include donation of materials to charitable organizations and salvage of materials on-site.

Strategy: Dinoflex will take returns of any unused Dinoflex products including scrap pieces and re-use in its manufacturing of other products.

Material & Resources: Credit 2.2

Environmentally Preferable Products (0.5 point each, maximum 8 points)

Use building component materials that meet one or more of the criteria below. Except as noted in Table 24, a material must make up 90% of the component, by weight or volume. A single component that meets each criterion (i.e., environmentally preferable, low emissions, and local sourcing) can earn points for each. a) Environmentally preferable products (0.5 point per component) that reduce environmental impact external to the house site (EPP Specification), or internal to the house (Emission Specification). Product specifications, including EPP and Emission Specifications, are listed in Table 24. Note: Recycled content products must contain a minimum of 25% postconsumer recycled content. Post-industrial (preconsumer) recycled content must be counted at half the rate of postconsumer content.

Material & Resources: Credit 4

Use materials with recycled content¹ such that the sum of postconsumer² recycled content plus 1/2 of the preconsumer content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. The minimum percentage materials recycled for each point threshold is as follows:

10% recycled content = 1 point, 20% recycled content = 2 points.

The recycled content value of a material assembly is determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value. Mechanical, electrical and plumbing components and specialty items such as elevators cannot be included in this calculation. Include only materials permanently installed in the project.

Potential Technologies & Strategies

Establish a project goal for recycled content materials, and identify material suppliers that can achieve this goal. During construction, ensure that the specified recycled content materials are installed. Consider a range of environmental, economic and performance attributes when selecting products and materials.

Material & Resources: Credit 5

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% or 20%, based on cost, of the total materials value. If only a fraction of a product or material is extracted, harvested, or recovered and manufactured locally, then only that percentage (by weight) can contribute to the regional value. The minimum percentage regional materials for each point threshold is as follows: 10% recycled content = 1 point, 20% recycled content = 2 points. See page 5 for map.

Mechanical, electrical and plumbing components and specialty items such as elevators and equipment must not be included in this calculation. Include only materials permanently installed in the project.

Potential Technologies & Strategies

Establish a project goal for locally sourced materials, and identify materials and material suppliers that can achieve this goal. During construction, ensure that the specified local materials are installed, and quantify the total percentage of local materials installed. Consider a range of environmental, economic and performance attributes when selecting products and materials.



Shaded areas indicate 500 miles from extraction and manufacturing location.

Any unused Dinoflex recycled rubber materials can be sent back to our manufacturing facility for recycling. The materials are reclaimed and used in the manufacturing of our other environmentally friendly Dinoflex products!

Recycled Content Chart (chart 1.1)

RECYCLED CONTENT CHART			
EVOLUTION RUBBER TILE	Total % RECYCLED	Post-Consumer CONTENT	Post-Industrial CONTENT
Rain Forest #514E43			
Casino Royale #514E44	64.14%	58.08%	6.06%
Purple Rain #514E45			
Dream Catcher #514E46			
Spanish Moss #514E58	63.67%	57.56%	6.11%
Sapphire Haze #514E62			
Smoky Azure #514E63			
Fire Fly #014E41	61.14%	54.40%	6.74%
Moon Beam #014E42			
Stone Ground #014E54	53.00%	44.17%	8.83%
Burning Embers #014E68			
Rio Grande #004E81	52.25%	43.00%	9.25%
Flamenco #014E82			
Mardi Gras #014E83			
Irish Moss #014E59	50.50%	41.00%	9.50%
Pixie Moss #014E60			
Liquid Metal #014E64			
Brush Fire #004E66			
Molten Lava #014E67			
Mesquite #004E50			
Muddy Water #014E52	36.52%	23.32%	13.20%
Spun Silver #014E65			
Adobe #004E51	30.18%	15.40%	14.78%
Wheat #004E55			
Baked Clay #001E53			
Sunflower #014E56			
Glade Moss #004E61			
Oatmeal #014E57	17.86%	0%	17.86%
Hot Salsa #014E69			

RECYCLED CONTENT CHART			
DINOFLEX EXTERIOR SURFACING PRODUCTS	Total % RECYCLED	Post-Consumer CONTENT	Post-Industrial CONTENT
Playground Tiles			
100% Recycled Black	91%*	91%*	
Pigment Colors: Red, Green, Beige, Brown	91%*	91%*	
EPDM Speckled Colors: 25%	86%*	85%*	1%*
50%	83%*	81%*	2%*
75%	79%*	76%*	3%*
CushionWalk® Pavers			
100% Recycled Black	90%*	90%*	
Pigment Colors: Red, Green, Beige, Brown	90%*	90%*	
EPDM Speckled Colors: 25%	73%*	68%*	5%*
50%	63%*	56%*	7%*
75%	43%*	31%*	12%*
NAVISTA Tiles			
100% Recycled Black	90%*	25%*	65%*
Pigment Colors: Red, Green, Beige, Brown	90%*	25%*	65%*
EPDM Speckled Colors: 25%			
50%			
75%			

*Varies slightly with tile size.

RECYCLED CONTENT CHART			
SPORT MAT FLOORING PRODUCTS	Total % RECYCLED	Post-Consumer CONTENT	Post Industrial CONTENT
100% Recycled Black	88%	88%	
Standard Colors • 10% Speckle & Two Color	82%	80%	2%
Granite Flex	86%	79%	7%
Granite Flex Plus	78%	70%	8%
Decor Collection	73%	69%	4%
Standard Colors • 30% Speckle	73%	69%	4%
Stone Line	64%	17%	47%
Standard Colors • 50% Speckle	64%	58%	6%
Elite Line	22.10%	5.04%	17.06%

Environmental Quality: Credit 4.1

Low Emitting Adhesives & Sealants

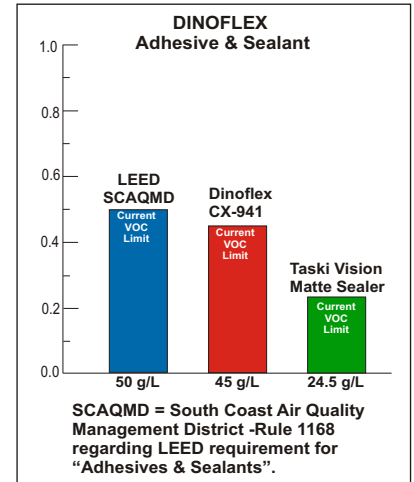
Potential Strategies and Technologies: Specify low-VOC materials that meet emission limits.

Strategy: Dinoflex recommended Adhesive - CX941 or Sealer - Taski Vision.

DINOFLEX CX-941 adhesive is a single component polyurethane based trowel-grade, structural adhesive. The patented formula is VOC compliant and it does not contain any solvents or water.

CX-941 provides excellent grab and outstanding bond strength. It is formulated for indoor and outdoor applications. The VOC content is 45 grams per liter, which falls below the current SCAQMD VOC limit of 50 grams per liter.

Taski Vision Matte Sealer is a very uniquely formulated floor finish that provides a durable protective coating, while providing a low gloss silky shine. VOC content is 24.5 grams per liter.



Low Emitting Materials Chart

Environmental Quality: Credit 4.3

Low Emitting Flooring Systems

SCS-1350 Compliant - Floorscore Certification Pending

Floorscore, a voluntary independent program which was developed by the resilient floor covering institute (RFCI) and is managed by SCS - Hard surface flooring and flooring adhesives that earn this certification meet the indoor air emission criteria of California 01350 and LEED EQ 4.1 and 4.3.

Innovation & Design Process: Credit 1.1

Potential Strategies and Technologies: Substantially exceed a LEED performance credit.

Strategies:

- 1) Dinoflex interlocking recycled rubber indoor flooring requires no adhesive in certain applications. This product extends life as it can be managed and turned over and re-used or removed and used in another application. (See chart 3.1)
- 2) Dinoflex Underlay and Rubber Tiles contribute to Acoustic Performance and can be applied in demonstrating that the acoustical performance improvements of a building clearly enhance the indoor environment in ways consistent with the preservation of human health and maximization of occupant productivity.

SUSTAINABLE

Under normal type of foot traffic and wear, rubber flooring typically outlasts carpet and linoleum. The interlocking pieces can be moved from high traffic to low traffic zones, thus extending their performance period.

In addition, the tiles are fully reversible and easy to re-install. When combined with the above mentioned floor management, the useful life-span may be doubled or even tripled.

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