

# **OKITE®** Leed Credit Data



# LEED Credit Data

Based on LEED Reference Guide for Green Building Design and Construction - 2009 Edition (Updated June 2010)

## **Materials and Resources (MR)**

- MR Credit 4 Recycled Content: New Construction (NC), Schools, Core and Shell (CS)
  - 1. Intent To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.
  - 2. Requirements Use materials with recycled content such that the sum of postconsumer 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:
    - Recycled Materials Content:
      - 10% 1 Point
      - 20% 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. Furniture may be included if it is included consistently in MR Credit 3 Material Reuse through MR Credit 7 Certified Wood (MR Credit 6 in CS).

#### **Materials and Resources (MR)**

#### • MR Credit 5 – Regional Materials: New Construction (NC), Schools, Core and Shell (CS)

- 1. Intent To increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.
- 2. Requirements 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) must contribute to the regional value. The minimum percentage regional material for each point threshold is as follows:
  - Regional Materials Content:
    - 10% 1 Point
      - 20% 2 Points
  - 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. Furniture may be included if it is included
    consistently in MR Credit 3 Material Reuse through MR Credit 7 Certified Wood (MR Credit 6 in CS).

#### Indoor Environmental Quality (IEQ)

#### • IEQ Credit 4.1 – Low-Emitting Materials – Adhesives and Sealants: 1 Point

- 1. Intent To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and wellbeing of installers and occupants.
- Requirements (New Construction (NC), Core and Shell (CS)) All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) must comply with the following requirements as applicable to the project scope.
  - Adhesives, Sealants and Sealant Primers must comply with South Coast Air Quality Management District (SCAQMD) Rule #1168. Volatile Organic Compound (VOC) limits correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005.
    - Refer to LEED Reference Guide for table of VOC Limits.
  - Aerosol Adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.
    - Refer to LEED Reference Guide for table of aerosol adhesive VOC Limits.
- Requirements (Schools) All adhesives and sealants installed in the building interior (defined as inside the weatherproofing system and applied on-site) must meet the testing and product requirements of the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda.

## Indoor Environmental Quality (IEQ)

- IEQ Credit 4.5 Low-Emitting Materials Furniture and Furnishings: 1 Point
  - 1. Intent To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and wellbeing of installers and occupants.
  - 2. Requirements (Schools Only) Classroom furniture including all student and teacher desks, tables and seats that were manufactured, refurbished or refinished within 1 year prior to occupancy must meet one of the required options below. Salvaged and used furniture that is more than 1 year old at the time of occupancy is excluded from the credit requirements.



- Option 1 Furniture and seating must be GREENGUARD Children and School certified.
- Option 2 Calculated indoor air concentrations that are less than or equal to those listed in Table 1 for furniture systems and seating determined by a procedure based on the EPA Environmental Technology Verification (ETV) Large Chamber Test Protocol for Measuring Emissions of VOC's and Aldehydes (September 1999) testing protocol conducted in an independent air quality testing laboratory.

Table 1 – Maximum	Indoor Air	Concentrations
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<b>Chemical Contaminant</b>	Classroom	Furniture Seating
Total VOC's	0.5 mg/m3	0.25 mg/m3
Formaldehyde	50 parts per billion	25 parts per billion
Total aldehydes	100 parts per billion	50 parts per billion
4-Phenylcyclohexene (4-PCH)	0.0065 mg/m3	0.00325 mg/m3

Option 3 – Calculated indoor air concentrations that are less than or equal to those established in Table 1 for furniture systems and seating determined by a procedure based on ANSI/BIFMA M7.1 – 2007 and ANSI/BIFMA X7.1 – 2007 testing protocol conducted in an independent third-party air quality testing laboratory.

#### Additional Green attributes of OKITE®

At the end of its lifecycle OKITE® stoneworks can be crushed or recycled to obtain concrete or roadfill.

At the end of its lifecycle, because OKITE<sup>®</sup> will retain its original finish and properties, OKITE<sup>®</sup> can be reused to obtain flooring, vanity tops, backsplashes and mosaics.

Due to its high structural strength, OKITE<sup>®</sup> does not require any substrate of Plywood, MDF or composite wood that is necessary when installing weaker surfacing products such as granite, marble, limestone, soapstone, solid surfacing or recycled concrete. Composite wood usually contains urea-formaldehyde resins that are potentially harmful to building occupants.

OKITE<sup>®</sup> Surfacing is designed to minimize the building occupants exposure to potentially hazardous particulates and chemical pollutants such as dangerous gases found in some natural stones.

OKITE® instead has been certifiedbyGreenGuardforitsIndoorAirQualityproperties.



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