

Mohawk Helping Architects Score - Rev. November, 2008

Mohawk is the best door supplier to help architects and owners across America to maximize their LEED NC 2.1 and 2.2 score. The U.S. Green Buildings Councils' LEED program for "Green" buildings is a Mohawk specialty. Wood is the original renewable resource. Let us help you use it in your next "Green" building project.

See our Product Brochure www.mohawkdoors.com for details.

Mohawk LEED Product Highlights -

- FSC Certified particle core, stave core and hollow core doors. FSC veneer is available but not necessary for Certification.
- Agri-Fiber core and Mineral core fire label doors with options for FSC Certified Our FSC Flat Tempered Hardboard can be used for FSC Certified fire doors and agrifiber core doors.
- No Added Urea Formaldehyde in composite wood is available in
 - Molded Hardboard,
 - Flat tempered hardboard in most common sizes
 - Veneer Faced doors
 - All core types available UF free including wood particle core.
- Certified pre-consumer recycled content is standard in all our Architectural Series wood particle core doors.
- Our wheat straw core is nearly all pre-consumer recycled material 97%.
 - Available for 20 min label doors.
- Rapidly Renewable is available with wheat straw core doors.
- Your LEED requirements are only limited by our concerns for good quality doors.

What is the LEED Green Building System?

When an architect is asked to specify a project and include LEED Certification, they set an objective for total LEED Credits. Under LEED NC there are 69 possible credits/points in over 40 categories. There are four LEED Certification levels. Generally, no one building element, like doors, will supply all the material need to qualify for a specific LEED Credit.

- 1. **LEED Certified (Bronze)** 26-32 LEED credits
- 2. Silver Level 33-38 LEED credits
- 3. Gold Level 39-51 LEED credits
- 4. Platinum Level 52 + LEED credits

Where to look for LEED requirements?

Section 08210/08211 may contain specific LEED Credit information but generally only suggests what LEED credits are required. DIVISION 1 MUST BE REVIEWED TO GET THE WHOLE PICTURE – Generally Section 01352.

The LEED requirements are shown primarily in Division 1 of the specification. We have seen it between 01100 and 01500. **Section 01352 seems to be the most popular**. It should include LEED Program (NC, EB, CS, Etc.), Program Version (1.0, 2.1, 2.2. etc.), Certification level required (Silver, Gold, Etc.). Each project should detail what credits are expected / required, the credits not expected and credits that the project may want to receive. This detail is shown in the official LEED Scorecard. Some times the Score Card is included in the specification but is certainly on file at the architects and contractors office.

How can Mohawk doors assist to qualify for LEED Credits?

While LEED standards continue to evolve, Mohawk currently provides the best opportunity to help architects specifying our product to qualify for LEED credits. At present, Mohawk products help to gain Credits in 4 categories (7 possible Credits).

LEED Category and Our Doors:

MR CREDITS - MATERIALS & RESOURCES - RECYCLED CONTENT, REGIONAL MATERIALS, RAPIDLY RENEWABLE, AND FSC CERTIFIED WOOD

MR Credit 4.1 and 4.2: Recycled Content: Recycled material, is counted as a percent recycle content based on weight of the entire door. Particle core is currently, the only source of recycled material in doors.

- Mohawks stock wood Particle Core is certified by SCS to contain post-industrial / pre-consumer recycled wood material. It is 62% Pre-Consumer which converts to about 52% by weight of the door.
- Our Agricore particleboard is 97% pre-consumer recycled material which converts to about 73% by weight of the door. It is available in LD-1 Grade and a low density variety as an alternative for Hollow Core doors.

Caution Notes: The particle core available to the door industry has the following issues.

- 1. Post Consumer recycled material is currently not available in door components
- 2. Most wood particleboard alternatives contain Urea Formaldehyde (UF). This may effectively disqualify the project from receiving EQ Credits 4.4. Mohawk has a several "no Added" UF alternatives.
- 3. Wheat straw core most times does not contain UF.
- 4. Our Agri-fiber will meet ANSI 208.1 minimums for LD-1 particleboard grade which is required by both AWI and WDMA quality standards.
- MR Credit 5 Regional Manufacture and Regional Materials: LEED NC 2.1 Credit 5.1 says "Specify a minimum of 20% of (all) building materials manufactured regionally within 500 miles of the project". This is, as we understand, air miles. This requirement has changed under LEED NC 2.2. A portion of the material in the door must also be harvested or extracted within the 500 mile radius. There is no minimum for Regional material but only that percentage can be claimed for this Credit.

Mohawks unique locations in the country can help supply this point for a very large area with <u>ALL</u> of its products. With factories in Northumberland, Pennsylvania, and South Bend, Indiana, we encompass a great deal of the US area with two 1000 mile circles. Regional material is possible but has a much more limited market area.

 MR Credit 6 – Rapidly Renewable Material - "Specify rapidly renewable building materials for 5% of total value of all building materials"... This requirement has changed under LEED NC 2.2. The percentage was lowered to from 5% to 2.5%. Our wheat straw board will qualify as rapidly renewable. It qualifies at about 73% of the cost of the door. Rapidly Renewable materials also include bamboo door faces.
 Bamboo faces are available from Mohawk.

Caution Notes: Bamboo and Agri-fiber products are currently the only products available.

- Bamboo faces are available in two cuts and two colors but are a bit more costly.
 Bamboo faces contribute little to this credit. Faces make up less than 5% of a doors material weight.
- MR Credit 7 Certified Wood: "Use a minimum of 50% of (all) wood-based material [on the project] certified [by the] Forest Stewardship Council...wood-based material must make up at least 2% of the total value of all materials to qualify for this point." SFI (Scientific Forest Initiative) and other forest certification programs are not allowed.

FSC requires that a product like a door have FSC wood content. Our invoice needs to reflect the percentage of FSC wood by weight or volume. Our FSC doors have a minimum of 70% FSC wood – FSC Mixed [70%] Label. A door is about 75% core so the core must be certified for the door to be certified. Unless the door is small (1/6, 2/0, etc.), no other parts need be certified FSC.

Agricore and most of the mineral core Mohawk uses are <u>not</u> wood and can <u>not</u> be certified FSC but are considered FSC neutral. FSC faces many times are all that is required to certify the door FSC. Mineral core for fire doors contains some wood fiber and can only be certified FSC wit FSC hardboard faces.

Under LEED NC 2.1 we understand if the door is certified FSC, at the 70% level or above, the entire value of the door can be used toward the 50% jobsite requirement. **Under LEED NC 2.2** FSC percent is counted at the actual percent of FSC content. Our FSC doors are FSC Mixed [70%]. This means that they are a minimum 70% FSC by weight or volume and 70% of the cost of the door to the building can be used for credit the Certified Wood Credit - MR7.

Mohawk can provide several door products that meet Certified wood requirement under FSC Certificate Number SCS-COC-00517. FSC certified doors can be produced in Tempered, Rustic and Molded hardboard and veneer faced doors. Some Mineral core, wheat straw core and Hollow core doors can be certified FSC Mixed [70%] as well.

In both Mineral core and wheat straw core doors all or most of the core is considered "FSC Neutral". When FSC hardboard is used in our 3/0 7/0 hollow core, mineral core and agri-fiber core doors, more than 70% of the wood that remains is in the door faces which allow FSC certification.

Caution Notes:

- 1. Distributors are now required to be FSC Certified as well unless they actually install the doors. See our Technical Bulletin for details
- 2. FSC Particle Core is available. It is made from wood waste and is difficult to maintain chain of custody but we have it.
- 3. There are no SCL Core products that are certified FSC. The two manufacturers of SCL have certified their board with SFI (Scientific Forestry Initiative) and not FSC.
- 4. Veneer faced doors generally have HDF composite crossbands. There are few crossbands available FSC Certified. This makes FSC certified agri-fiber and mineral core doors difficult to produce.

<u>INDOOR ENVIRONMENTAL QUALITY - LOW-EMITTING MATERIALS - Meet of exceed VOC limits for adhesives, primers, paints, stains and composite wood products.</u>

- <u>EQ Credit 4.1 & 4.2 Adhesives, Paints and Coatings:</u> By USGBC LEED ruling on LEED NC 2.1 and written into 2.2, these credits apply only to materials cured at the Jobsite. Our adhesives and coatings are fully cured at the factory.
- <u>EQ Credit 4.4 Composite Wood -</u> "Composite wood and agri-fiber products must contain no added urea formaldehyde (UF) resins." In LEED NC 2.2 the assembly adhesives have been added. Note: This Credit deals with restriction on Urea Formaldehyde and not Formaldehyde.

Mohawk uses No UF assembly adhesives. Our stave core, SCL core, FSC Particleboard, agri-fiber core and nearly all our stiles and rails do not contain UF adhesives. Crossbands, faces, and wood particle core are available without UF when requested. Both our molded and Tempered Hardboard faces contain no added UF.

Wood Composites used in doors today that may contain UF include engineered/composite/HDF crossbands, wood Particle Core, most molded and flat hardboards. All Face veneers, lumber stiles and rails, veneer crossbands, and stave core are all natural products and have no adhesives added at all. Most doors available today use composite crossbands that contain added UF.

The Mohawk products and materials which help building projects earn specific LEED points are merely one part of Mohawk's commitment to the future of our environment on a regional, national, and global basis. For decades, Mohawk has used only materials from suppliers who are sensitive to sustainable land use and practice conservation and forest renewal.

We know our suppliers well, and we require that all of them purchase wood from forest owners who practice good forest management which adheres to the laws and forest practices of the state or province where the trees are harvested. As we continue to produce "Green" doors, Mohawk will continue to do all that is necessary to ensure that all facets of our program adhere to the highest environmental standards.

LEED continues to changes and evolve. Check with the USGBC web site for the latest changes.

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