LEED Category Materials and Resources (MR) Recycled Content Credit MR 4 (10% or 20%)

LEED Requirement

"Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 5% of the total value of the materials in the project."

The value of the recycled content portion of a material or furnishing shall be determined by dividing the weight of recycled content in the item by the total weight of all material in the item, then multiplying the resulting percentage by the total value of the item.

Mechanical and electrical components shall not be included in this calculation. Recycled content materials shall be defined in accordance with the Federal Trade Commission Document Guide for the Use of Environmental Marketing Claims –

16 CFR 260.7(e) available at www.gov/bcp/ grnrule/guide980427.html.

MDF is available to comply with LEED requirement for recycled / recovered material and low-emitting material. MDF is available as a core material or finished with our exceptional quality laboratory grade finish.

CiF Response

MDF (medium density fiberboard) can be used as a core material in lieu of veneer core or particle core. In addition to it's exceptional performance characteristics, it also brings several options to a LEED project.

MDF can be provided as 100% recycled / recovered material. The recycled content is 100% post-industrial content and therefore counts as one-half when calculating the impact. (note – when specifying and purchasing, identify this as 100% Recycled / Recovered content as there are other MDF panels that have a lesser recycled / recovered content).

In addition to MDF core for wood veneered cabinet, particleboard and veneer core plywood are excellent alternatives.

Separately, it is important to remember that the steel being used to manufacture painted metal casework, flexible table systems, service carriers, and fume hoods can also contribute to the MR 4 recycled content credit(s).

To Do

Discuss with your CiF Representative the substrate choices and determine what is the best path to ensure environmental compliance and quality construction.



LEED Category Materials and Resources (MR) Rapidly Renewable Materials Credit MR 6 (1 point)

LEED Requirement

"Use rapidly renewable building materials and products (made from plants that are typically harvested within a ten-year cycle or shorter) for 5% of the total value of all building materials and products used in the project."

CiF Response

Although this credit is available for a project to pursue, recent evidence points to the fact that material technology is lagging behind the construction communities desired design intentions. Strawboard / agriboard cores and plyboo (bamboo plywood) are susceptible to warping, cupping and even mold growth. Until such time that these cores are improved and are delivered to the industry as quality, stable materials, CiF recommends pursuit of the Materials and Resources credit 7 (MR7): Certified Wood. By specifying and purchasing the core substrates that are certified as coming from a sustainably managed forest, the project will obtain this important credit, protect the environments forest resources and ensure quality cabinet construction. See FSC Certification tab and the next page.

If the lab casework is supplied with a strawboard / agriboard core (and therefore not a product under the jurisdiction of FSC), LEED would simply exclude the casework from the formula used to establish the 50% threshold.

CiF does not recommend pursuit of the MR 6.1 credit. Alternatively we recommend pursuit of the MR 7 credit.

LEED Category Materials and Resources (MR) Certified Wood Credit MR 7 (1 point)

LEED Requirement

"Use a minimum of 50% of wood based materials and products, certi ed in accordance with the Forest Stewardship Council's Principles and Criteria for wood building components including, but not limited to, structural framing, and general dimensional framing, flooring, furnishings, and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers."

CiF Response

CiF is FSC certified and can provide a range of FSC certified materials ranging from:

- FSC veneer core plywood cores
- FSC certified particleboard cores
- FSC certified solid lumber.

CiF's chain of custody certificate number is FSC ACC 004.

CiF is FSC certified and can provide chain-ofcustody certificates when providing FSC certified materials. See the FSC Certification tab for CiF's certificate.



LEED Category Indoor Environment Quality (EQ) Low-Emitting Materials

Composite Wood Credit EQ 4.4 (1 point)

LEED Requirement

"Composite wood and agri ber products must contain no added formaldehyde resins."

Contrary to some common misconceptions and misunderstandings, the issue of water based finishes for lab casework is not a LEED issue. LEED credits are only earned by addressing the finishes applied on-site such as paints for walls, site finished trim, etc. and does not address factory finishing.

Catalyzed Vinyl is the only finish recommended by AWI for laboratory casework. Responsible and sustainable design calls for products to have as long a life as possible. The use of the most durable finish is consistent with the sustainable building goals.

MDF is available in several LEED applicable versions including a NAF product (no added formaldehyde) and a 100% recycled recovered product.

CiF Response

Several LEED compliant panel cores are available that have either "no added urea formaldehyde" (referred to as NAF or "made without formaldehyde based adhesives").

Columbia Forest Products have introduced a veneer core plywood (PureBond) that uses a core that has no formaldehyde. This material is readily available. In fact, 100% of Columbia's veneer core plywood are now made with no added formaldehyde.

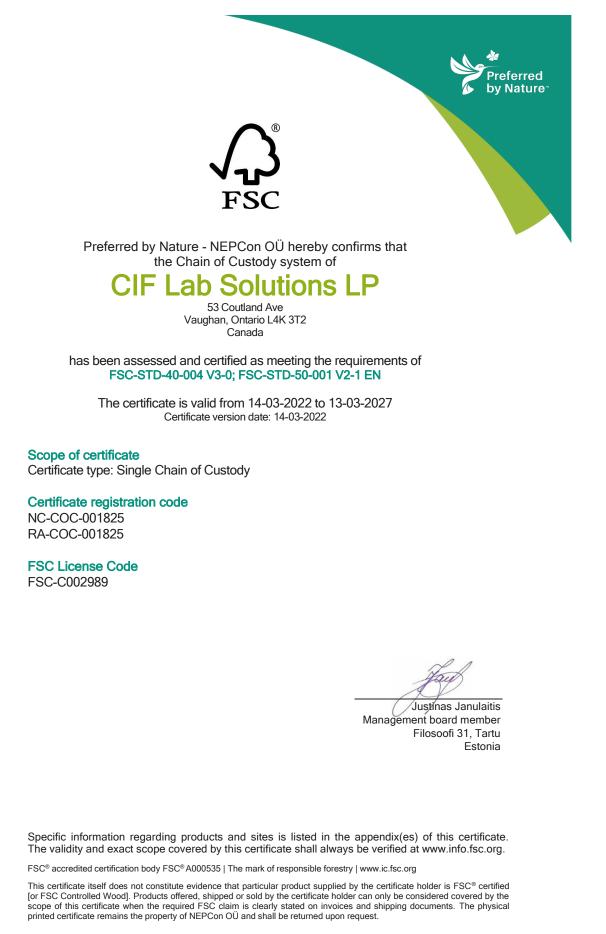
Other options include:

- Classic Core—hybrid core plywood
- ArmorCore—hybrid core plywood
- Medite II MDF











Annex A: Scope of CIF Lab Solutions LP FSC® Chain of Custody Certificate NC-COC-001825 RA-COC-001825

Product Type	Trade Name	Output FSC Claims
W12.1	Cabinets	FSC Mix x%
W12.10	Cupboards and chests	FSC Mix x%
W12.11	Kitchen countertops	FSC Mix x%
W12.12	Parts of furniture	FSC Mix x%
W12.13	Shelves	FSC Mix x%
W12.2	Custom Furniture	FSC Mix x%
W12.3	Tables	FSC Mix x%
W12.7	Office Furniture	FSC Mix x%
W12.8	Institutional casework	FSC Mix x%
W12.9	Wardrobes	FSC Mix x%

This certificate itself does not constitute evidence that particular product supplied by the certificate holder is FSC[®] certified [or FSC Controlled Wood]. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents. The physical printed certificate remains the property of NEPCon OÜ and shall be returned upon request.

Certificate version date: 14-03-2022