BioFibre-Cement Block

Benefits of Biofibre-Cement Block (BCB)

Environmental Advantages

BCBs are fabricated using reclaimed agricultural-fibre, a waste by-product destined for landfill or field burning. This helps reduce waste and deforestation by substituting for wood. TTS's BCBs are thermal and sound insulators, resistant to rotting, rodents, insects, moisture and fire. They are 50% lighter than currently used concrete "light weight" sound insulation blocks.

Lower energy costs

- Reduce manufacturing and shipping costs
- Reduce heating and cooling cost of building

Health benefits

- Buildings with cement-bonded bio-block walls stay warm in the winter and cool in the summer
- Walls breathe so the rooms do not get stuffy

BCBs and LEED

BCBs can be an excellent way to help your projects qualify for LEED credit for environmentally friendly construction, including:

- EA1 Optimize Energy
- IEQ Low-emitting Materials
- MR1 Building Reuse
- MR2 Construction Waste Management
- MR4 Recycled Content
- MR5 Local/Regional Materials
- MR6 Rapidly Renewable materials
- MR8 Durable Building

BioFibre-Cement Block Properties	
Dimension	8"×8"×16"
Bulk density (kg/m^3)	500
Compression strength (MPa)	≥ 2
R-value ($Ft^2 \bullet F \bullet hr/BTU$)	R10.4
Flame Spread	0 (ASTM E84)
Smoke Developed	0 (ASTM E84)

Composites Innovation Center (CIC) Mechanical room sound isolation wall (Winnipeg Manitoba, Canada)

Fabrication Guidelines

Handing: Blocks can be handled similar to any conventional cement blocks. BCB block can be cut as needed using wood cutting tools.

Fastening: Use standard concrete mortar for laying blocks and vertical joints. Drywall or wood panels can be also fastened to the blocks using standard connectors such as staples, nails and screws.

Finishing: If BCBs are used as exterior walls, the exposed surface must be coated with weather resistant paint or appropriate stucco.

This information is provided without warranty, expressed or implied, and it is accurate to the best knowledge of TTS at the time of printing.

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