

KiriBloX®

THE SIMPLE WAY TO BUILD WITH WOOD

PRODUCT INFORMATION

WOOD ORIGIN	Agro-wood from agricultural land within the EU, no deforestation, partly organic certified, not from forests.
RENEWABLE / REGENERATIVE	Fast-growing (3–8 years), regrows after harvest (no replanting needed), EU agriculture, partly organic certified.
AGE OF TREE AT HARVEST	3–8 years.
FSC/PEFC CERTIFICATION	Not required. Since Kiri wood for KiriBloX® comes from agricultural land rather than forests, this type of certification is unnecessary. On the contrary, this approach goes beyond forest protection by reducing usage pressure on forests.
KIRI WOOD WEIGHT	Approx. 250 kg/m³.
SOLID WOOD UTILIZATION EFFICIENCY	Approx. 70% (from round log to KiriBloX®).
MANUFACTURER AND PRODUCTION SITE	KIRITEC GmbH, Tönisvorst, Germany.
SOLID WOOD CONTENT	In wall construction with 6 cm external insulation, solid wood content is approx. 75%.
LOAD-BEARING EXTERNAL WALL THICKNESS	25 cm + 6 cm diffusion-open external insulation + 2 cm interior lining = 33 cm for U-value 0.19. – Important: No gypsum board (GK), no OSB.
U-VALUE	The KiriBloX® 250 wall system achieves a U-value of 0.19 W/m²K with 6 cm fiber insulation outside and 2 cm plasterboard inside (standard wall structure).
FIRE PROTECTION	Fire resistance class REI90, no smoke penetration, no structural restrictions after 90 minutes of fire exposure at 1,000°C.
THERMAL INSULATION (λ) KIRI WOOD	Insulation value approx. 30% better than spruce or pine. With a thermal conductivity of $\lambda = 0.09$ W/mK, Kiri wood is significantly below the spruce/pine value of $\lambda \approx 0.13$ W/mK.
SOUND INSULATION	Material testing in preparation.
ROOM ACOUSTICS	Profiled wall surface improves room acoustics compared to flat surfaces.
WEIGHT	KiriBloX® 150: Approx. 11 kg KiriBloX® 250: Approx. 35 kg
FASTENING TO WALL, FLOOR AND CEILING SLAB	Alignment using conventional timber beams/strips (floor sill). On wooden floors, direct installation of KiriBloX® possible. Horizontal barrier required under KiriBloX®. Anchoring to floor slab with angle brackets; execution as per structural engineer's specifications.
FOIL / VAPOR BARRIER	Not required, since the monolithic wood mass evenly absorbs and releases indoor air moisture – without local condensation effects.
WEATHER PROTECTION / WIND TIGHTNESS	Must be installed externally – similar to other wall systems. Important: system must remain diffusion-open (e.g., ventilated façade, mineral plaster, mineral paint).

INTERIOR CLADDING	Not mandatory. For smooth interior walls, an optional 2 cm plasterboard can be installed – only use diffusion-open components (boards, plasters, paints). Alternatively, interior can remain unclad.
EXTERIOR CLADDING	6 cm fiber insulation board is sufficient to achieve U-value mentioned above.
CO₂-STORAGE	63 kg per KiriBloX® 250 (permanently stored, as it is circular and reusable).
CIRCULARITY AND REUSABILITY	Reusable: Due to modular design, KiriBloX® can be used independently of buildings, fully recyclable, made of 100% wood.
FLEXIBILITY	Adaptations can be easily made during construction.
STRUCTURAL CAPACITY / MULTI-STORY	Load-bearing capacity unlimited: wall thickness of 25 cm successfully tested with 100 t load – equals approx. 4 stories. For higher loads, thicker walls required.
PLANNING TIME	Relatively short, thanks to standardization. Profile dimensions (E8 edge extension profile) expandable at will.
DIFFUSION-OPEN	Yes.
ESG CONFORMITY (SDGS)	<ul style="list-style-type: none"> 7 Affordable and Clean Energy 8 Decent Work and Economic Growth 9 Industry, Innovation and Infrastructure 11 Sustainable Cities and Communities 12 Responsible Consumption and Production 13 Climate Action 17 Partnerships for the Goals
ETA APPROVAL	In progress.
EPD CERTIFICATION	In progress.
TRANSPORT EFFICIENCY	Approx. 40% more m ² per truck due to low weight and compact shape. Containers/trucks can be fully loaded.
WAREHOUSING LOGISTICS	Palletized, easy to store, lightweight.
ASSEMBLY TIME	Approx. 40% faster installation thanks to plug-in system.
ASSEMBLY COSTS	Fewer workers needed, significantly shorter assembly time.
MACHINERY / CRANE LOGISTICS	Mini cranes with gripper, 2–5 m reach sufficient.
FACTORY LEAD TIME / CONSTRUCTION TIME	No factory lead time necessary – assembly on-site possible within a few days.
DISMANTLING	Damage-free disassembly possible by sliding out dowels at joints.
SERIAL CONSTRUCTION	Highly standardized, modular, storable.
SKILLED LABOR REQUIREMENT	Low training effort, as construction is simple and self-explanatory.