

KiriBloX®

THE SIMPLE WAY TO BUILD WITH WOOD

BUILDING PHYSICS PROPERTIES
KiriBloX® WALL SYSTEM

FIRE PROTECTION	Wall thickness: 22.5 cm	REI 90
THERMAL INSULATION	Wall thickness: 25 cm Exterior insulation: 6 cm Gutex fiber insulation board Interior cladding: plaster base board 20 mm Central cavities filled with mineral bulk material	Thermal transmittance coefficient $U\ 0,19\ W/(m^2 \cdot K)$
STRUCTURAL PERFORMANCE	Wall panel load-bearing capacity without additional load Wall height: 2.4 m Wall width: 2.4 m Wall thickness: 22.5 cm	$F_{max} = 29.34\ kN$
	Wall panel load-bearing capacity without additional load Wall height: 2.4 m Wall width: 2.4 m Wall thickness: 22.5 cm	341.08 kN
	Allowable wall compression force Wall height: 3 m Wall length: 1.5 m Wall thickness: 22.5 cm	1,000 kN
DOWEL WITHDRAWAL FORCE	Dowel diameter: approx. 15 mm (profiled surface – not circular)	Mean value: 289 N
	Dowel diameter: approx. 25 mm (profiled surface – not circular)	443 N

SCREW WITHDRAWAL FORCE	Chipboard screw 5 x 100 mm with partial thread and countersunk head, PZ2, insertion depth 75 mm, not pre-drilled	At 0° 1.81 kN At 60° 3.23 kN At 90° 3.80 kN
	Chipboard screw 6 x 100 mm with partial thread and countersunk head, PZ3, insertion depth 75 mm, not pre-drilled	At 0° 3.69 kN At 60° 3.23 kN At 90° 3.79 kN
	Wood construction screw 8 x 180 mm with partial thread and countersunk head, TX40, insertion depth 150 mm, not pre-drilled	At 0° 6.34 kN At 60° 5.04 kN At 90° 4.45 kN
	Wood construction screw 10 x 200 mm with partial thread and countersunk head, TX50, insertion depth 165 mm, not pre-drilled	At 0° 6.36 kN At 60° 8.02 kN At 90° 6.02 kN
	Lag screw 12 x 140 mm with partial thread and hex head, SW19, insertion depth 125 mm, pre-drilled with 8 mm to a depth of 80 mm	10.84 kN
COMPRESSION TEST	Based on EN 408	16.46 fc,0 [N/mm²]
	Test specimen: single elements - 75 mm	4587 Ec,0 [N/mm²]