The Biofore Company UPM

WISA®-Form Birch^{MBT}

WISA-Form Birch^{MBT} is a coated plywood panel with new Moisture Barrier Technology (MBT) for use in concrete formwork. MBT controls the face veneer's moisture movement - minimising ripple on the panel surface. This enables an even smoother and ripple-free end result without compromising the number of reuses. The birch base panel is strong and the coating on both sides and sealed edges protect the panel from harsh weather conditions, prolonging the panel's service life.

Base board

Birch plywood made solely from birch (hardwood) veneers bonded together in a cross bonded construction.

Bonding

Phenolic resin cross-bonded weather resistant glueing according to EN 314-2/class 3

Surface and edges

Face: 220 g/m² phenolic film with moisture barrier technology
Imprinted text: *WISA-Form Birch^{MBT} on this side*
Reverse: 220 g/m² dark brown phenolic film
Edge sealing: Water resistant paint

Constructions and thicknesses

Nominal thickness (mm)	Number of plies	Thickness (mm) Min	Thickness (mm) Max	Weight kg/m²
15	11	14.3	15.3	10.5
18	13	17.1	18.1	12.6
21	15	20.0	20.9	14.7

Moisture content 8-12 %.

Panel size

1220/1250 x 2440/2500 mm
1500/1525 x 3000/3050 mm
Cut sizes at customer's request
Size tolerance (length/width) ±1mm per metre
Squareness tolerance ±1mm per metre length of diagonal

Reuses

Typical number of reuses is likely to be in the range of 20 – 80 times. However, this will vary according to many different factors including good site practice, required concrete finish, amount of care taken when compacting the concrete, handling and storage of the forms, type and quality of release agent.

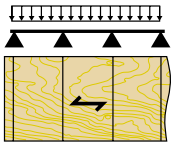
Design Data

Mechanical properties of WISA-Form Birch^{MBT}, in standard thicknesses, moisture content 10±2 %

Nominal thickness (mm)	Mean modulus of elasticity bending (N/mm²)		Characteristic strength bending (N/mm²)	
	EmII	EmI-	fmII	fmI-
18	10048	7452	40.2	34.1
21	9858	7642	39.4	34.3

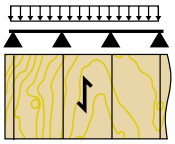
Face grain parallel to the span (II)

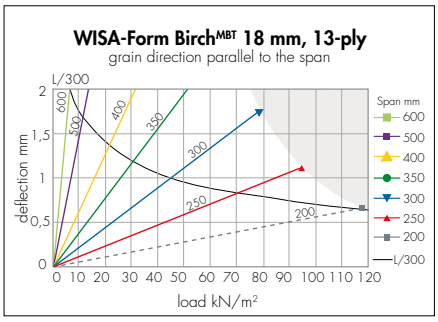
grain direction of surface veneers

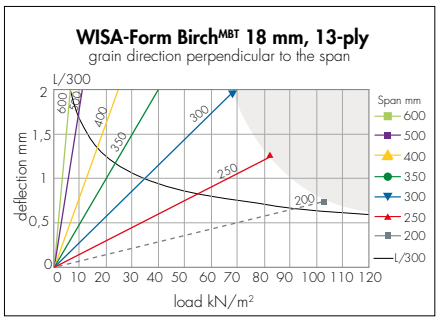


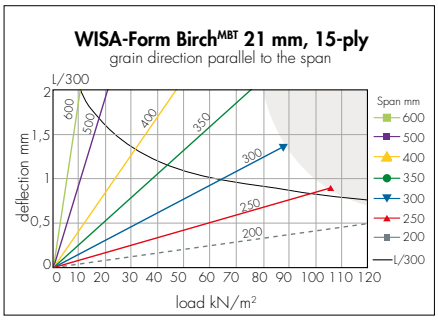
Face grain perpendicular to the span (I –)

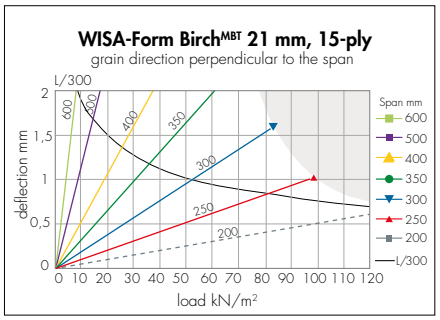
grain direction of surface veneers











Moisture content 27 %, short time loading

Partial safety factor for the material is 1.3. Partial safety factor for the loads is 1.2 (according to the Handbook of Finnish Plywood, 2004).

Deflection limit L/300 of the span

Support width is not taken into account in calculations

For all detailed technical values, please see product-specific DoP (Declaration of Performance) on www.wisaplywood.com/dop.

Instructions for use

See "Guide to Good Site Practice" available from UPM.

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