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WISA®-FORM SPRUCE

WISA-Form Spruce is a coated special plywood for use in loose panel concrete formwork.

Base board

Spruce plywood made solely from spruce (softwood) veneers bonded together in a cross banded construction.

Bonding

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

Surface and edges

Face and reverse: Dark brown phenolic film 120 g/m².

Imprinted text: "WISA-Form Spruce".

Edge sealing: Two coats of water resistant paint.

Constructions and thicknesses

Nominal thickness (mm)	Min. number of plies*	Min. thickness (mm)	Max. thickness (mm)	Weight kg/m ² (MC 10 %)
12	7	11.5	12.5	6.0
15	7	14.3	15.3	7.5
18	9	17.1	18.1	8.9
21	11	20.0	20.9	10.4

*Number of plies may be larger

Panel size

Standard panel sizes:

1200/1220/1250 x 2400/2440/2500 mm

2400/2440/2500 x 1200/1220/1250 mm

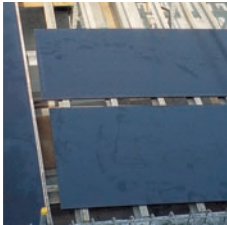
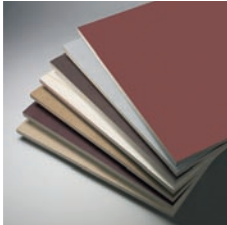
Size tolerance (length/width) ± 1 mm per metre

Squareness tolerance ± 1 mm per metre length of diagonal

Reuses

Typical number of reuses is likely to be in the range of 5 - 10 times. However, this will vary according to many different factors including good site practice, the required concrete finish, the amount of care taken when compacting the concrete, handling and storage of the forms, type and quality of release agent.





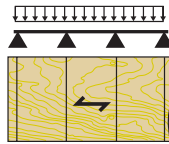
Design Data

Mechanical properties of WISA-Form Spruce, in standard thicknesses, moisture content $10 \pm 2\%$

Nominal thickness (mm)	Mean modulus of elasticity bending (N/mm ²)		Characteristic strength bending (N/mm ²)	
	Emll	Eml-	fmlI	fml-
18	5395	6605	13.5	18.8
21	5226	6774	13.1	18.9

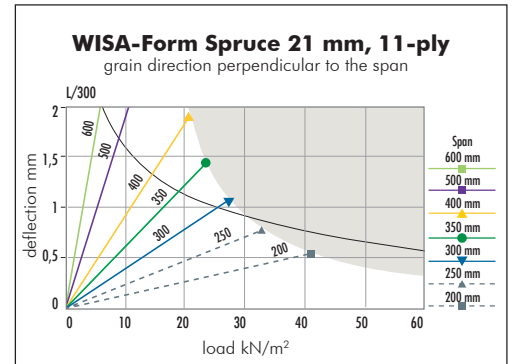
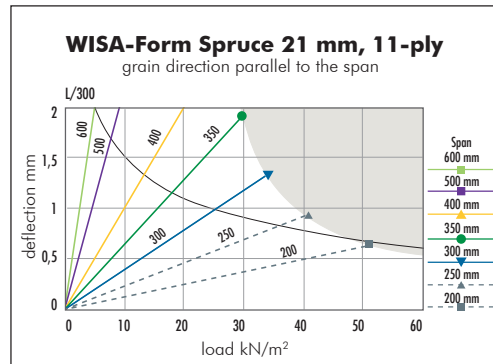
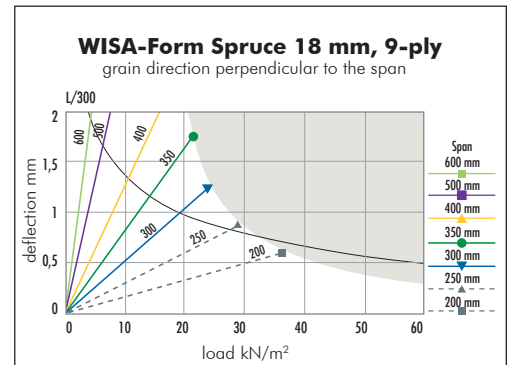
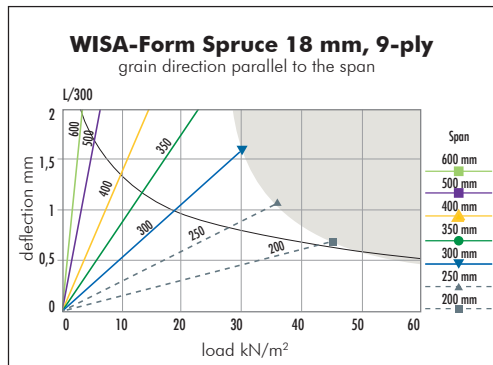
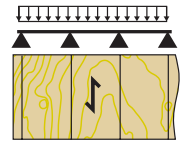
Face grain parallel to the span (| |)

← grain direction of surface veneers



Face grain perpendicular to the span (| -)

← 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.
 Deflection limit $L/300$ of the span
 Support width is not taken into account in calculations

Instructions for use

See "Site guidance note for WISA-Form plywood" available from UPM.

UPM policy is one of continuous development. We reserve the right to amend specifications without notice or obligation.



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