



# WISA®-Form MDO

WISA-Form MDO 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: MDO coating, for matt concrete finish.

Reverse: Dark brown phenolic film with imprinted text "WISA-Form MDO" as moisture barrier.

Edge sealing: Two coats of water resistant paint.

## Thicknesses and weight

Nominal thickness (mm)	Number of plies	Min. thickness (mm)	Max. thickness (mm)	Weight kg/m <sup>2</sup> (MC 10%)
18	7	17.5	18.5	9.0
21	7	20.5	21.5	10.0

## Panel size

2440 x 1220 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 10 - 15 times. However, the number of reuses will depend on a wide range of factors including good site practice, the required concrete finish, careful handling & storage of forms and the type and quality of release agent.

## Form release agents

The selection of the most suitable release agent will ensure cleaner striking of the forms and thus more reuses, as well as better quality concrete finishes. The chemically active release agents are considered to be the most suitable for MDO coating.

**Important note:** MDO coating is not pre-oiled and must be oiled twice before first use, and thereafter once before each subsequent reuse of the form.



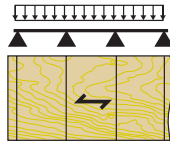
# Design Data

Mechanical properties of WISA-Form MDO, in standard thicknesses, moisture content 10 +/- 2 %

Nominal thickness (mm)	Mean modulus of elasticity bending (N/mm <sup>2</sup> )		Characteristic strength bending (N/mm <sup>2</sup> )	
	E <sub>mll</sub>	E <sub>ml-</sub>	f <sub>mll</sub>	f <sub>ml-</sub>
18	8170	3830	20.4	13.0
21	7547	4453	18.9	14.3

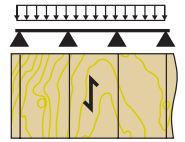
WISA-Form MDO is constructed with the grain direction of the outermost (face) veneers running parallel to the long edges of the panel. Therefore boards should always be used with the long edges parallel to the span direction to minimise deflection of the shutter.

Face grain parallel to the span (||)

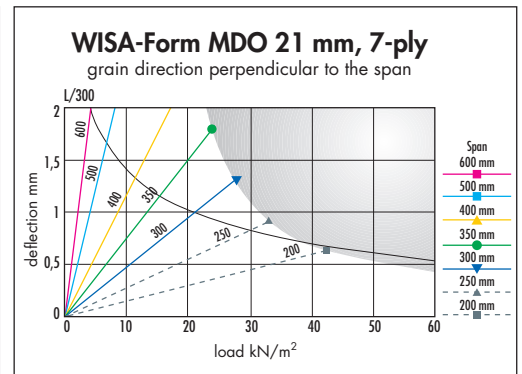
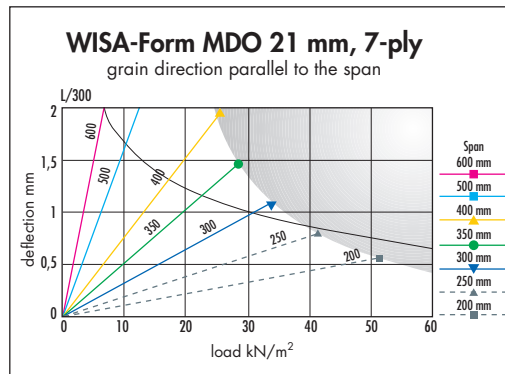
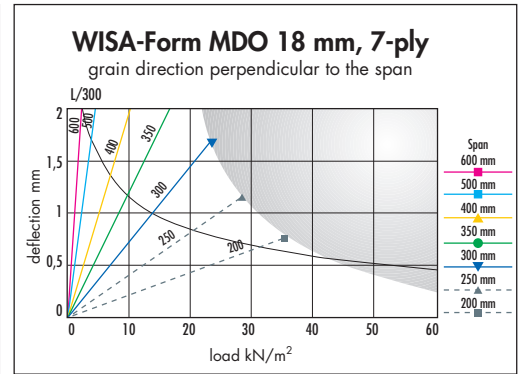
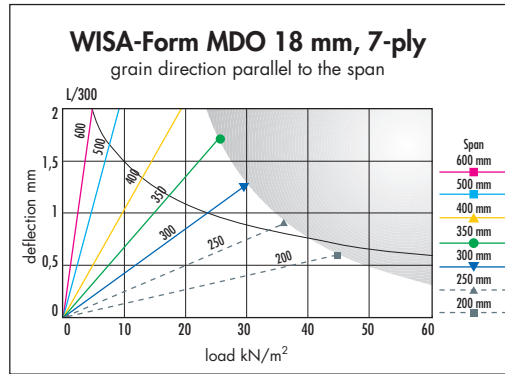


← grain direction of surface veneers

Face grain perpendicular to the span (|-)



← grain direction of surface veneers



Moisture content 27 %, short term 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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