

# BIRCH PLYWOOD FOR CONCRETE FORMWORK

**RIGA**<sup>®</sup>

The logo for RIGA features the word "RIGA" in a bold, orange, sans-serif font. To the right of the text is a registered trademark symbol (®). Below the text is a graphic element consisting of several parallel, horizontal lines that curve upwards and to the right, creating a sense of depth and movement.

# RIGA®

Riga® Form and Riga® Poliform birch plywood with excellent mechanical properties and strength to weight ratio, designed to fulfil demanding concrete construction design and requirements.

Riga® Form and Riga® Poliform for:

- good visual finish
- high number of reuses





# FORM WORK APPLICATIONS

- Walls
- Slabs
- Columns
- Elements and blocks
- Curved surfaces





# MAIN FEATURES

Riga® Form and Riga® Poliform

- Riga® birch throughout plywood is made of legally sourced EU raw material
- Bonded with phenolic resin (EN 314-2:Class 3, exterior)
- CE marked

# MAIN ADVANTAGES

## Riga® Form and Riga® Poliform

- Good load bearing properties
- Excellent mechanical properties with exceptional strength / weight / stability – ratio
- Consistent quality proven and tested
- Wide range of overlays for obtaining high quality finish
- Edge sealing with elastic exterior acrylic paint
- Simple and easy to install with conventional fixing methods
- Multiple re-use
- Easy cleaning
- Environmentally friendly







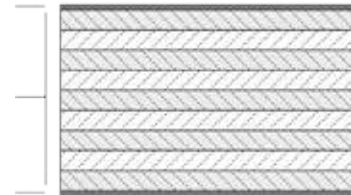
## Construction of Riga® Form panels

# RIGA FORM

Overlay: Smooth phenolic film

Core: Birch veneers cross bonded, number of plies according to panel thickness

Overlay: Smooth phenolic film



Smooth and durable phenolic film is hot-pressed on plywood surface.

### PRODUCT PROPERTIES

- Resistant surface
- For smooth concrete finish
- Standard film color Dark Brown, other colors available
- Wear resistant
- Weather resistant
- Tolerates commonly used chemicals, diluted acids and alkalis
- Resistant impacts
- Easy to machine and fix
- Numerous re-uses (up to 40) possible
- Easy-to-clean with water or steam
- Environmentally friendly
- With customer logo

## STANDARD SIZES

1220 mm x 2440 mm, 1220 mm x 3050 mm  
 1250 mm x 2500 mm, 1250 mm x 3000 mm  
 1500 mm x 2500 mm, 1500 mm x 3000 mm  
 1525 mm x 3050 mm, 1500 mm x 3660 mm  
 2150 mm x 3050 mm, 2150 mm x 3340 mm, 2150 mm x 4000 mm

Cut-to-size panels and machining available in accordance with customers' requirements.

NOMINAL THICKNESS IN MM	6,5	9	12	15	18	21	24	27	30	35	40
Number of plies	5	7	9	11	13	15	17	17	21	25	29
Lower tolerance	6,1	8,8	11,5	14,3	17,1	20	22,9	25,8	28,7	33,6	38,4
Average Thickness	6,4	9,2	12	14,9	17,7	20,5	23,4	26,5	29,4	35	38,7
Upper Tolerance	6,9	9,5	12,5	15,3	18,1	20,9	23,7	26,8	29,9	35,4	41,2

INDEX	TOLERANCE
Length and width <1000mm	± 1 mm
Length and width 1000 - 2000 mm	± 2 mm
Length and width > 2000mm	± 3 mm
Right Angle	± 0,1 %
Straightness of edge	± 0,1 %





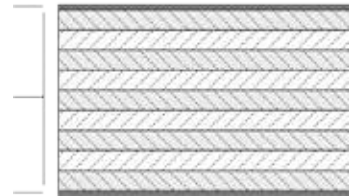
## Construction of Riga® Poliform panels

# RIGA POLIFORM

Overlay: Wood fiber and Polypropylene Composite  
1.6mm thick

Core: Birch veneers cross bonded, number of plies according to panel thickness

Overlay: Wood fiber and Polypropylene Composite  
1.6mm thick



A smooth and durable overlay consisting of 1.6 mm thick Wood Fiber and Polypropylene Composite coating.

## PRODUCT PROPERTIES

- No rippling
- Resistant surface, glossy or mat, for smooth concrete finish
- Number of re-uses over 100 times
- Standard colors Grey and Blue
- Superior Weather and Wear Resistance
- Tolerates commonly used chemicals, diluted acids and alkalis
- Impact resistant
- Easy to machine and fix
- Easy-to-clean with water or steam
- Environmentally friendly



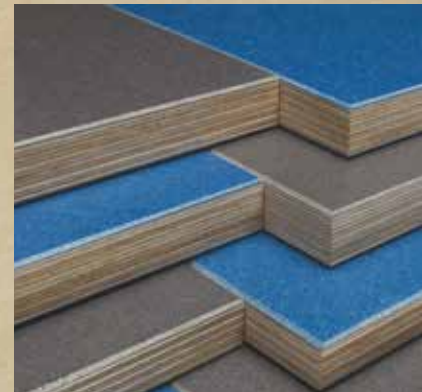
## STANDARD SIZES

1220 mm x 2440 mm, 1220 mm x 3050 mm  
 1250 mm x 2500 mm, 1250 mm x 3000 mm  
 1500 mm x 2500 mm, 1500 mm x 3000 mm  
 1525 mm x 2440 mm, 1525 mm x 3050 mm

Cut-to-size panels and machining available in accordance with customers' requirements.

NOMINAL THICKNESS IN MM	15	18	21
Number of plies	9 + 2 PP	11 + 2 PP	13 + 2 PP
Lower tolerance	14.8	17.4	20.7
Average Thickness	15.2	18.0	21.3
Upper Tolerance	15.6	18.7	21.7

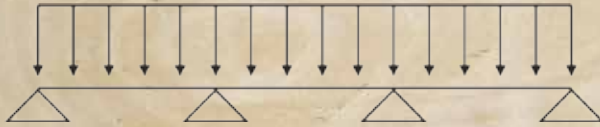
INDEX	TOLERANCE
Length and width <1000mm	± 1 mm
Length and width 1000 - 2000 mm	± 2 mm
Length and width > 2000mm	± 3 mm
Right Angle	± 0,1 %
Straightness of edge	± 0,1 %



# OVERLAY PROPERTIES

			Riga Form, 120g/m <sup>2</sup>	Riga Form, 220g/m <sup>2</sup>	Riga PoliForm	
			Mat	Glossy		
Water penetration (Cobb 168h)	g/m <sup>2</sup>	EN 20535	122	80	115	71
Crack resistance	Cone <sub>min</sub> (mm)	EN 13696	0.8	0.8	No cracks	No cracks
Surface Hardness (Brinell)	HB <sub>k</sub>	EN 1534	2.91	3.75	3.80	3.35
Abrasion resistance (Taber value)	Rounds	EN 438-2	350	775	>10 000	>10 000
Temperature resistance	100°C (class)	EN 12722	4	4	5	5
	150°C (class)		2	3	5	4
Impact resistance	(IC class)	EN 13329	None	None	IC3	IC3
Scratch resistance	N	EN ISO 1518	>20	>20	>20	>20
Number of uses	Cycles	Based on practise	30 (at least)	40 (at least)	100 (at least)	100 (at least)
Rippling		Based on practise	Occur	Occur	None	None

## Load resistance for a uniformly distributed load on a sanded continuous plate strip with three equal span lengths



Platform supported three equal span plate strip

### Mechanical properties of Riga® Form products

Uniformly distributed load  $q$  (kN / m<sup>2</sup>) and deflection  $u$  (mm). Nominal thickness (mm)

Service Class 1: $K_{mod} = 0,7$ $\Psi_2 = 0,2$ $Y_m = 1,2$ $K_{def} = 2,5$ $Y_q = 1,2$		Span c/c mm	9		12		15		18		21		24	
			q	u	q	u	q	u	q	u	q	u	q	u
	Grain direc- tion perpen- dicular to supports	200	59 s 1,6	79 s 1,2	92 s 0,85	112 s 0,72	126 s 0,60	144 s 0,55						
		300	39 s 4,8	53 s 3,3	62 s 2,3	74 s 1,8	84 s 1,4	96 s 1,2						
		500	14 b 13	23 b 9,9	34 b 8,3	45 s 7,0	50 s 5,3	58 s 4,4						
	Grain direc- tion parallel to supports	200	51 s 2,5	64 s 1,4	84 s 1,0	98 s 0,78	117 s 0,67	132 s 0,58						
		300	28 s 6,2	42 s 4,0	56 s 2,8	65 s 2,0	78 s 1,7	88 s 1,4						
		500	10 b 16,4	18 b 12	27 b 9,6	39 b 8,0	47 s 6,2	53 s 4,9						

$K_{mod}$ : factor of taking into account duration and the dryness

$K_{def}$ : factor of taking into account the duration and dryness

$\Psi_2$ : constant value factor of variable load

$Y_m$ : safety coefficient

$Y_q$ : safety coefficient

b: limitation of permissible load by deformation

s: limitation of permissible load by shear force

q: uniformly distributed load

u: allowable deflection

Mechanical properties for uniformly distributed load on a panel, on three supports of the same range are calculated according to following assumptions:  $Y_2 = 1.2$ ;  $Y_m = 1.2$ ;  $K_{mod} = 0.70$ . As a result, the characteristic load for Class 3 service (outside) and short-term (less than one week) shall not exceed the values in the table.

The load used and the resistance characteristics values are assumed to be almost permanent.

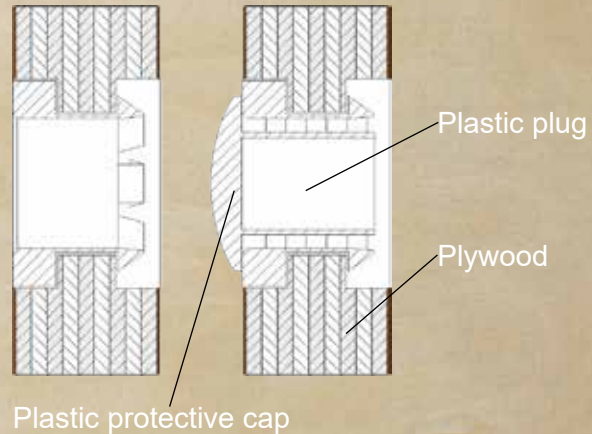


# Examples of machining

Holes and recesses



Metal or plastic inserts



Jointing - for extra large shuttering panels





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# RIGA<sup>®</sup> BIRCH PLYWOOD

- Wide range of sizes
- Panel thicknesses from 6.5 to 50 mm
- Panels with company logos
- Special veneer construction to improve strength and stiffness properties
- Long grain construction (up to 2500 mm)
- Edge machining
- CNC-machining
- Variety of colors for phenolic overlays

## STANDARDS & CERTIFICATIONS



F☆☆☆☆

CE





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**RIGA**<sup>®</sup>



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