Riga Poliform

Riga Poliform is a birch throughout plywood, overlaid with a high performance and highly durable wood-plastic composite (WPC) material.

Applications

Riga Poliform is a specialty formwork panel with superb mechanical properties and is designed to last longer with as many as 300 uses dependant on specific end use and site practice.

HEAVY BUILDING
Formwork systems
Precasting

Major advantages

• Tough and impact resistant surface for smooth concrete finish • No rippling • As many as 300 reuses when correctly installed • Recycled wood fibres utilised in the wood-plastic overlay • Water resistant surface and weather resistant gluing • Surface is resistant to commonly used concrete release agents, diluted acids and alkalis, easy to clean with water or steam for repeated uses • Special solutions are available for applications requiring a higher surface elasticity such as nailing • Easy to machine and fix on site • Variety of standard sizes, cut-to-size and jointed panels available • Sustainable product with long life-span

Further processing

Riga Poliform can be further processed according to customer's specification with: cut-to-size, CNC, drilling, milling, jointing, edge machining, and assembling in sets. Following any on-site cutting, machining and drilling, all exposed edges should be thoroughly sealed.

Coating

The composite material is made of wood fibres and polypropylene (PP) for SP1 or polyethylene (PE) for SP2, overlay thickness 0.8 mm or 1.6 mm. The coating covers both faces, upon request it is possible to coat the reverse side with film.

Two coating types available:
WPC SP1 – high surface hardness for durability
WPC SP2 – higher surface elasticity for nailing applications

Surface properties

The wood-plastic composite coating offers a highly durable, hard and dense surface, increasing panel resistance against mechanical damage and wearing. It resists concrete release agents, cement alkalis and other corrosive chemicals.
The panels can be used within a temperature range from –40 °C up to +80 °C. Cold temperatures can reduce WPC flexibility making it less suitable for nailing. After use, panels release well and maintain their performance for a long time.
Riga Wood experts will advise the most appropriate overlay depending on the end use.

Wear resistance

	WPC SP1	WPC SP2
Surface hardness (Shore D Durometer)	>72 HD	>62 HD
Taber test (EN 438-2)	up to 17,000 revolutions	up to 27,000 revolutions

Film colour

The standard colour is matt grey, other colours – blue, green, yellow, red, natural (without colour pigment).
One of the main components of the coating is recycled wood fibres (>40% of the volume). As wood is a natural material, changes in colour may develop during use, primarily as a result of sunlight exposure. Additionally, freshly produced panels may show slight colour differences, as natural wood fibres can vary in tone.

Edge sealing

The edges are sealed with colour matched moisture resistant paint. Other colours are available upon request.

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Panel sizes

- 1220 / 1250 mm × 2440 / 2500 / 2745 / 2750 / 3000 / 3050 / 3340 / 3660 mm
- 1500 / 1525 mm × 2440 / 2500 / 2745 / 2750 / 3000 / 3050 / 3340 / 3660 mm

Standard thicknesses

9, 12, 15, 18, 21, 24, 27, 30, 35, 40, 45, 50 mm
Other thicknesses available on request.

Gluing classes

Riga Wood birch plywood is glued with weather and boil-proof phenol formaldehyde or lignin phenol formaldehyde resin adhesive according to EN 314/Class 3 Exterior.
The overlay is bonded with a combination of melamine-urea-formaldehyde (MUF) adhesive with hardener intended for end-uses, where high water and weather resistance is needed.

Tolerance

Nominal thickness, mm	9	12	15	18	21	24	27	30	35	40	45	50
Number of plies	5 + 2×WPC	7 + 2×WPC	9 + 2×WPC	11 + 2×WPC	13 + 2×WPC	15 + 2×WPC	17 + 2×WPC	19 + 2×WPC	21 + 2×WPC	25 + 2×WPC	29 + 2×WPC	32 + 2×WPC
Lower limit, mm	9.3	12	14.7	17.5	20.3	23.2	26.1	29	31.9	36.8	41.6	46.5
Upper limit, mm	10.1	12.7	15.7	18.5	21.3	24.1	26.9	30	33.1	38.6	44.4	49.6

Moisture content affects plywood dimensions; indicated sizes and thicknesses relate to a moisture content 9 ± 3%.

Parameter	Tolerance
Length, width (mm) < 1000	± 1 mm
Length, width (mm) – 1000..2000	± 2 mm
Length, width (mm) > 2000	± 3 mm
Squareness tolerance	± 1 mm/m
Edge straightness	± 1 mm/m

Size and squareness tolerances fulfil the requirements of EN 315.
Customised tolerances available on request.

Formaldehyde emission

Riga Wood birch plywood formaldehyde emission level is significantly below EN 13986 Class E1 and complies with new REACH Formaldehyde Restriction Regulation EU 2023/1464, EPA TSCA Title VI and CARB Phase 2.

Compliance to REACH

Riga Wood birch plywood meets all the requirements of the REACH Regulation. It does not contain SVHC (Substances of Very High Concern) listed on the REACH candidate list for authorisation exceeding concentration 0.1 % by weight.

Sustainability

We strongly believe that wood-based products in industrial use are a great option for carbon storage and a big part of the solution to achieve climate change mitigation. The key principles of sustainability and responsible governance are deeply rooted in our company's traditions and we aim to further develop our initiatives by actively engaging with stakeholders, material suppliers and clients.

Storage

Plywood must be stored in a well ventilated, weather protected area with the panels stacked both horizontally and level.

Additional information is available in the Riga Wood plywood handbook:
https://www.finieris.com/en/downloads/brochures