

# Birch Plywood

PRODUCT GUIDE



# Birch Plywood



James Latham supply a wide range of high quality Birch Plywood and to help you get the most from this versatile product – we have now improved and updated our product guide to provide more technical information.

Birch trees are the ultimate natural resource with virtually every part of the tree being utilised. The twigs are used for besoms and sauna whisks, timber for furniture and flooring; bark was used for roofing and canoes, and even the sap for wine! Waste timber and residue at plywood mills is used for boiler fuel and helps create additional energy for small towns.

Since the late 19th Century one of the main uses of Birch is for high quality plywood that is widely used for furniture, construction, toys, vehicle building, packaging and today high-tech wind turbine blades.

From an Environmental Perspective, Birch is an abundant species found in the forests of the northern hemisphere being widespread across Russia and most of Northern Europe, in particular Finland and countries bordering the Baltic. Birch species are relatively fast growing and support a myriad of varied wildlife, and where managed as a sustainable forest resource, does not impinge on the natural biodiversity.

So for quality, sustainably sourced plywood, European Birch is definitely 'The Natural Choice'.

Birch Plywood is available with either FSC or PEFC certification and James Latham has a comprehensive Chain of Custody system in place to ensure transparency in sourcing its timber products.



## Birch Plywood Grades - 'commercial availability'

### HIGHER GRADES

#### Grade B

Generally, the best grade available for clear finishing. Good clean appearance, only minor, natural features, i.e. small pin knots permitted. **Note:** Normally only available with BB Grade reverse.

#### Grade B/BB

Has one very good clean B Face, the reverse BB side can have patches and other imperfections.

#### Grade S

Similar to Grade B, but allows more natural defects and a few well-made patches – Generally good enough quality face for clear finishing or painting. **Note:** Normally only available as S/BB Grade.

#### WISA-Premium S/BB

A special product supplied by James Latham that has extra fine sanding to one face – ideal for high quality clear finishing, wall linings, acoustic panels and furniture.

#### Grade BB

The main commercial grade - both faces are Grade BB – which allows patches and other knots/imperfections. Suitable for all general work, where face grade not overly important – However, some good quality BB grade boards may even be acceptable for clear finishing or furniture!



*Photo supplied courtesy of UPM Kymmene.  
Above indicates WG quality.*

### LOWER GRADES

#### Grade BB/CP and BB/WG

Grade BB face with WG or CP reverse. Standard commercial grades which are essentially only sound (Good) one side – Reverse side can have numerous large knots, open splits/defects and discolouration.

#### Grade CP

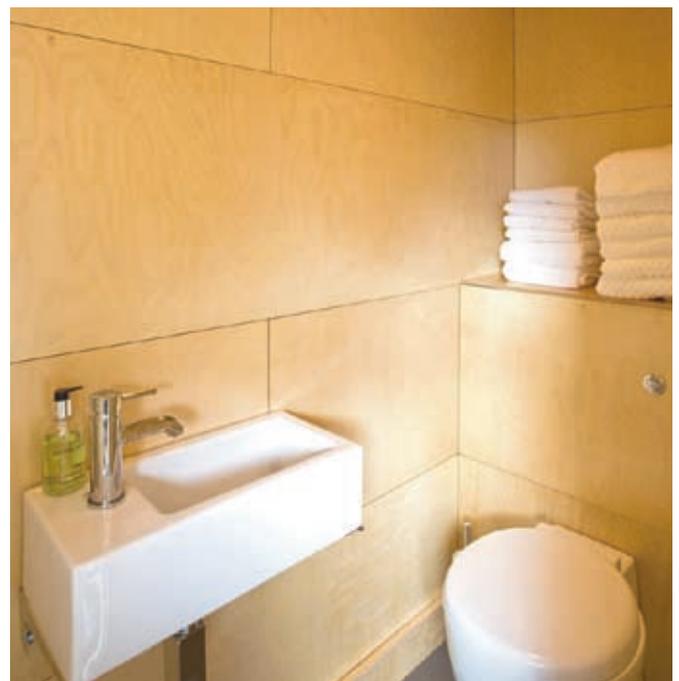
Russian Grade – In between BB and WG used where face appearance not important, i.e. packing crates, furniture carcasses.

#### Grade C

Similar appearance and use as Grade WG – may be un-sanded with large open defects and discolouration. Sound, solid both sides.

#### Grade WG

Large knots / patches / open defects, staining and discolouration - used for packing crates and carcass work or where unseen, such as upholstered furniture.



*Photo courtesy of Eco-Space Ltd. Photographer: Andy Spain.  
Product used - WISA Premium.*

# Birch Plywood

## How to specify?

BS EN 635-2 : 1995 Plywood – Classification by surface appearance. Part 2. Hardwood

Note: - within EN 635-2 five grades are classified, E, I, II, III and IV - for ALL hardwood species. However, European Birch plywood is generally graded according to a country's own National Grading Rules - so only rough comparisons can be made with EN 635-2, as the grades from the countries below tend to be more stringent.

Therefore, for practical purposes it is often easier to specify by Grade Letter, i.e. Grade B/BB or by the grade and country of origin, i.e. Finnish Birch Plywood, Grade S/BB or Latvian/Eastern European Birch Plywood, Grade BB - depending on end use requirement.

The bond type must also be specified, i.e. EN314-2 : Class 2 or 3, depending on hazard class and applications.

EN 635 – 2 Grades for all hardwoods	Guide to end use for birch grades	Finnish birch	Latvian birch, Eastern European birch	Russian Birch- grading rules only
Approx Equivalents - But generally higher quality than EN 635-2				
Grade E		Grade A - This quality is near perfect ! So not commercially available		Not available as per EN 635-2 grading rules
Grade I	Clear-finishing, decorative uses, furniture, wall panels, toys, models, shopfitting, interior design	Grade B - Normally only available as B/BB		Grade B Available as B/BB Note: E/BB Specific Russian grade – 1 face grade is between B and S
Grade II		Grade S – Normally available as S/BB and WISA-Premium S/BB (finer sanded face)		S/BB
Grade III	General use furniture, painting laminating and veneering	Grade BB – Main commercial grade with two sound faces. BB/WG - only has one sound face.		BB or BB/CP (one sound side) are main commercial Russian Grades
Grade IV	Packing cases, pallet bases, carcassing	Grade WG		CP/CP or CP/C
			Grade C – Un-sanded	C/C

Please note - 'E' grade is not commercially available at present and B/B is very difficult to obtain.



*Birch plywood used to clad the walls of this contemporary garden room creates a clean, minimalist look that works well in both large and small buildings. (Photo courtesy of Eco-Space Ltd. Photographer: Andy Spain.)*

## **Bond type and where to use birch plywood?**

The majority of Birch plywood supplied by James Latham is bonded with thermosetting, exterior quality phenolic resin adhesives – formerly known as WBP (Weather and Boil Proof) from the withdrawn standard BS 6566. Several standards now relate to the manufacture and specification of plywood, the main one being:- EN 314 – 2 with class 3 for exterior quality bonding. Most of the birch plywood supplied by James Latham meets this standard and is also rated as E1, (very low formaldehyde release) and some birch plywood also meets the new 'CARB' Regulations.

Exterior quality adhesives generally appear as dark, purplish-brown glue-lines on the plywood edges and are essential for applications that fall within Hazard Classes 2 and 3 of EN 335-3. The contrasting dark glue-lines against pale birch are also exploited for internal aesthetic/design purposes, with kitchen carcasses, cupboard doors and furniture being designed to highlight this feature. The uniform construction of birch plywood means that the faces and edges can easily be CNC machined, then simply lacquered or waxed as required (for internal purposes) as the photograph above demonstrates.



*The standard veneer thickness for most European Birch plywood is 1.4mm. Plywood normally has a balanced construction of alternating cross and long grain veneers, i.e. 9-ply for 12mm, 13-ply for 18mm.*

# Birch Plywood

## The versatile plywood

Although the majority of our Birch plywood is bonded with tough, durable exterior quality adhesives, only certain types of pre-finished Birch plywood can be used externally or in areas of high humidity – For example, overlaid panels like **Buffalo Board™** and **WISA-Multiwall** or other coated boards, as supplied by Advanced Technical Panels/James Latham, may be used externally when correctly installed and maintained.

Standard, uncoated, exterior bonded birch plywood **must** always be adequately protected with a suitable exterior paint or wood stain system if used externally. – See TRADA - WIS Section 2/3 Sheet 11 (revised 2006) for more advice and information.

Interior bonded panels are also available and depending on grade should only be used for such applications as die-boards, furniture, packaging and other end-uses within an interior, non-structural dry environment. Grades offered include BB and C.

When Birch Plywood is specified for use in structural 'load-bearing' applications such as flooring, roofing and wall sheathing it must have an exterior glue line to EN 314-2 Class 3, plus must also conform to the CE Structural quality as defined in EN 13986 with reference to the Construction Products Directive (CPD). More information on EN13986 is available on request.

As well as this European Standard, Finnish Birch Plywood is also listed in BS 5268 Part 2: The Structural Use of Timber. 2002 and the strength data in Section 4 of this standard, enables architects and engineers to design structures using Birch Plywood. We can also supply strength data for Birch plywood from other Eastern European countries and a range of technical information is available on request.

**End Use example;** - 'The Sibelius Hall' in Lahti, Finland\* and 'The Sage' in Gateshead utilised high quality Birch Plywood for wall linings and acoustic panels. James Latham and Advanced Technical Panels can offer CNC machined and cut-to size panels similar to these.

James Latham can also supply Birch Plywood that has a durable, stylish laminate bonded to one or both sides. This can be used for contemporary furniture solutions, shopfitting and joinery applications.



*\*The ceiling and walls of the Sibelius Hall were clad with Finnish birch plywood.*



*Centenary Bar' at Sheffield University's School of Architecture, CNC machined Grade S/BB Birch Plywood with WISA-Hexagrip floor*



*Birch plywood used in contemporary furniture design.*

## James Latham. The Natural Choice for Birch Plywood

James Latham stock a wide range of birch plywood - so we are able to offer you greater choice and value, plus our knowledgeable staff are always on hand to help with specifications or technical information.

Exterior Bonded EN 314-2		
Thicknesses	from 3mm to 30mm ( up to 50mm on request )	
Sizes	1220mm x 2440mm / 3050mm plus 1525 x 3050mm / 3660mm, cross grain 2440mm x 1220mm long grain panels always available and larger non-standard panels can be made to order up to 4000mm long.	
Grades	B/BB and S /BB	The highest grades generally stocked
	WISA-Premium S/BB	Extra fine sanding – for high-class work
	BB, BB/WG or BB/CP	The main commercial grades for general purpose applications
	WG, CP and C	The lower grades used for packing, crates and pallets where face quality is not important

Interior Bonded EN314-2	
Thicknesses	from 3mm to 24mm
Sizes and falling sizes	1525 x 1525mm and falling sizes
Grades	BB, C and WG

Thin Finnish Birch Plywood	
Thicknesses	from 0.4mm up to 3mm in stock
Sizes	1220 x 1220, 1270 x 1270, 1525 x 1525mm
Grades	BR/BR or AB/B

The above is to be used as a guide, please check availability with your local James Latham depot. Special sizes/thicknesses and specifications, plus CNC machined and cut to size panels are available to order, although minimum quantities may apply.

Details given represent a fair description of the products and are given without liability.

Most of our plywood is manufactured using Birch veneers throughout. All our plywood meets EN314-2 and EN13986.

More information relating to EN Standards, Plywood Specification and use can be found in the WPIF Panel Guide and from TRADA who have produced a range of Wood Information Sheets concerning Plywood and other wood-based panels. [www.wpif.co.uk](http://www.wpif.co.uk) [www.trada.co.uk](http://www.trada.co.uk)

# Importing & distribution companies



## Marketing

Tel: 0116 257 3415  
Email: [marketing@lathams.co.uk](mailto:marketing@lathams.co.uk)

## Website

[www.lathamtimber.co.uk](http://www.lathamtimber.co.uk)

## Panel & Timber Products

### 1 Dudley

Unit 3, Yorks Park, Blowers Green Road  
Dudley, West Midlands DY2 8UL  
Tel 01384 234444  
Fax 01384 233121  
Email: [panels.dudley@lathams.co.uk](mailto:panels.dudley@lathams.co.uk)  
Email: [timber.dudley@lathams.co.uk](mailto:timber.dudley@lathams.co.uk)

### 2 Fareham

Unit 6, Matrix Park Talbot Road  
Fareham, Hants PO15 5AP  
Tel 01329 854800  
Fax 01329 849585  
Email: [panels.fareham@lathams.co.uk](mailto:panels.fareham@lathams.co.uk)  
Email: [timber.fareham@lathams.co.uk](mailto:timber.fareham@lathams.co.uk)

### 3 Gateshead

Nest Road, Felling Industrial Estate  
Gateshead Tyne & Wear NE10 OLU  
Tel 0191 469 4211  
Fax 0191 469 2615  
Email: [panels.gateshead@lathams.co.uk](mailto:panels.gateshead@lathams.co.uk)

### 4 Ossett

Milner Way, Longlands, Ossett  
West Yorkshire WF5 9JE  
Tel 01924 276111  
Fax 01924 280193  
Email: [panels.ossett@lathams.co.uk](mailto:panels.ossett@lathams.co.uk)  
Email: [timber.ossett@lathams.co.uk](mailto:timber.ossett@lathams.co.uk)

### 5 James Latham Scotland

Pharos, Brittain Way, Eurocentral  
Lanarkshire ML1 4XJ  
Tel 01698 838777  
Fax 01698 831452  
Email: [scotland@lathams.co.uk](mailto:scotland@lathams.co.uk)

### 6 Wigston

Chartwell Drive off West Avenue  
Wigston, Leicester LE18 2FN  
Tel 0116 288 9161  
Fax 0116 281 3806  
Email: [panels.wigston@lathams.co.uk](mailto:panels.wigston@lathams.co.uk)  
Email: [timber.wigston@lathams.co.uk](mailto:timber.wigston@lathams.co.uk)

### 7 Yate

Badminton Road Trading Estate  
Yate, Bristol BS37 5JX  
Tel 01454 315421  
Fax 01454 323488  
Email: [panels.yate@lathams.co.uk](mailto:panels.yate@lathams.co.uk)  
Email: [timber.yate@lathams.co.uk](mailto:timber.yate@lathams.co.uk)

## Panel Products

### 8 Hemel Hempstead

Unit 2 Swallow Park, Finway Road  
Hemel Hempstead, Herts HP2 7QU  
Tel 01442 849000  
Fax 01442 239287  
Email: [panels.hemel@lathams.co.uk](mailto:panels.hemel@lathams.co.uk)

### 9 Thurrock

Unit 4, Dolphin Way, Purfleet  
Essex RM19 1NZ  
Tel 01708 869800  
Fax 01708 860900  
Email: [panels.thurrock@lathams.co.uk](mailto:panels.thurrock@lathams.co.uk)

## Timber Products

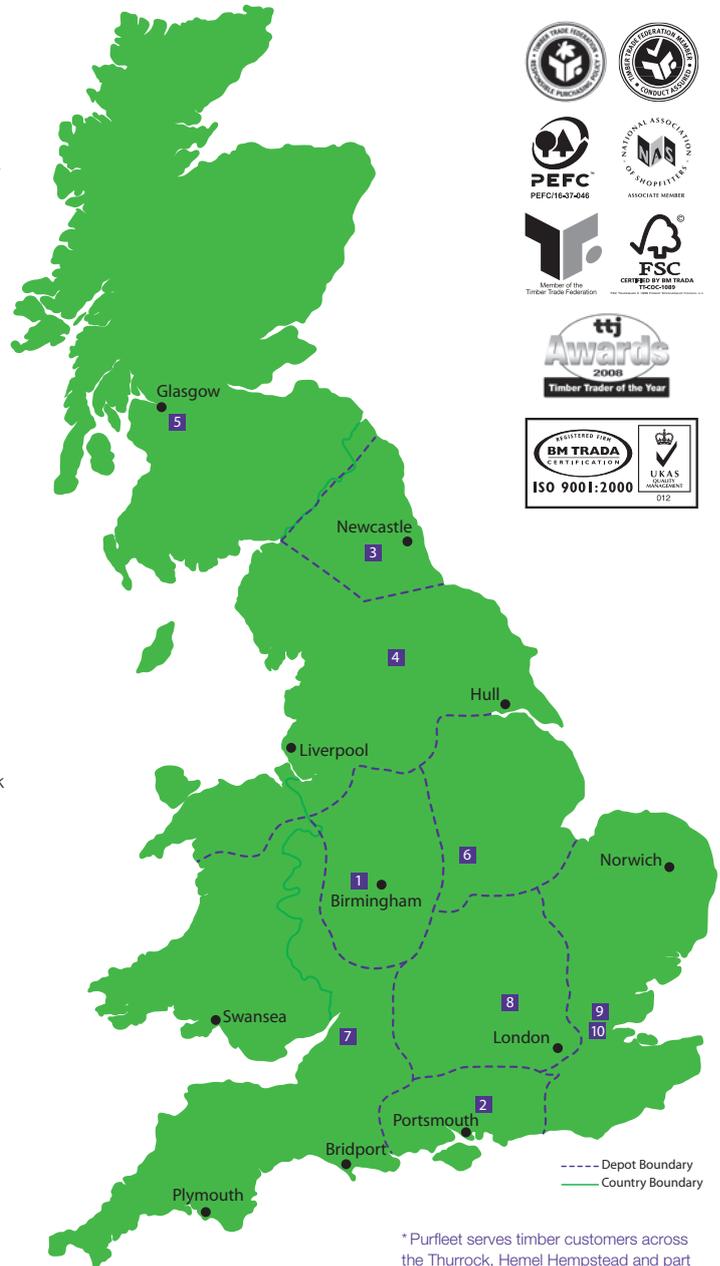
### 10 Purfleet \*

Units 22/24, Purfleet Industrial Park  
Juliette Way, Aveley, South Ockendon  
Essex RM15 4YD  
Tel 01708 864477  
Fax 01708 862727  
Email: [timber.purfleet@lathams.co.uk](mailto:timber.purfleet@lathams.co.uk)

## Speciality Panels

### 4 Advanced Technical Panels

Milner Way, Longlands, Ossett  
W. Yorks WF5 9JE  
Tel 01924 263655  
Fax 01924 280193  
Email: [atp@lathams.co.uk](mailto:atp@lathams.co.uk)  
[www.advancedtechnicalpanels.co.uk](http://www.advancedtechnicalpanels.co.uk)



\* Purfleet serves timber customers across the Thurrock, Hemel Hempstead and part of the Fareham panels sales areas

JL BP/03-09

## OTHER AVAILABLE BROCHURES:

- Door Blanks
- Machined Panels
- iDeck
- Decorative Veneered Panels
- Newsletter
- Bausen Flooring
- Environmental Certification Schemes and Timber Purchasing
- Product Guide
- ATP for Transport
- Flexible Panels
- Kolorband - Kronospan
- ATP Plywood Guide
- HI-MACS
- ATP for Flight Cases

Details given represent a fair description of the product and are given without liability. Availability and sizes are subject to confirmation at the time of order.