

The Plywood Specifiers Guide

A clear and concise reference
for all applications.

 **H PERFORMANCE**
Plywood®

 **H SP101**
Flooring Plywood®

 **H BIRCH**
Plywood

 **H POPLAR PLYWOOD**
PANGUANETA
Specialty Plywood

 **H SOFTWOOD**
Plywood

 **H FIRE RETARDANT**
Panels


Hanson
PLYWOOD LIMITED

Helping architects and specifiers to make the correct choices

The quality of plywood available on the market can vary significantly. As such, specifiers face the increasing challenge of making informed decisions regarding the selection of high quality plywood that is not only suitable for the intended end use, but also satisfies the required performance criteria.

As an example, there is a tendency to select Marine grade plywood for many construction end uses in the belief that a high-quality board has been specified; the reality may be far from the case potentially leading to performance issues in service.

The Hanson Plywood Specifiers Guide details panels which have stringent technical characteristics that meet all relevant industry standards. This ensures the specification of a plywood product that will provide assured, high-level performance.

Hanson Plywood offers a comprehensive specification guidance service to ensure the plywood product selected fully meets the requirements of the intended application.

Quick Reference Guide

1 - Dry

Typical Applications:

Internal joinery, flooring underlay, pipe boxing, doors, hatches, weight saving applications etc.

Applicable Standards:

- EN 636:2012 (Class 1)
- EN 314-2 Plywood bond quality (Class 1)
- EN 335 - Durability of wood and wood-based panel products (Use Class 1)
- EN 310 - Bending test (Refer to test data)
- EN 13986 - Wood-based panels for use in construction (CE Marked)

2 - Humid

Typical Applications:

Floors, flooring underlay, walls, roofs, roof decking, linings, hoardings, protection etc.

Applicable Standards:

- EN 636:2012 (Class 2)
- EN 314-2 Plywood bond quality (Class 2)
- EN 335 - Durability of wood and wood-based panel products (Use Class 2)
- EN 310 - Bending test (Refer to test data)
- EN 13986 - Wood-based panels for use in construction (CE Marked)

3 - Exterior

Typical Applications:

Floors, walls, roof decking, soffits, linings, signs etc.

Applicable Standards:

- EN 636:2012 (Class 3)
- EN 314-2 Plywood bond quality (Class 3)
- EN 335 - Durability of wood and wood-based panel products (Use Class 3)
- EN 310 - Bending test (Refer to test data)
- EN 13986 - Wood-based panels for use in construction (CE Marked)



Our panels are listed on the Riba Product Selector, NBS Plus, SpecifiedBy and Bimstore as further aids to ensuring products can be specified using reliable sources of technical information.

H PERFORMANCE Plywood®

The logical and reliable alternative to general commercial **Marine Plywood** offering full classification and performance in all conditions. **EN 636 Use Class 3, EN 314-2 Class 3 Exterior Glue.**

Applications - construction, roofing, flooring, wall panelling, joinery, portable buildings, vehicle body building and all applications which demand full compliance with exterior classification standards.



H BIRCH Plywood

An extensive range of birch plywood carrying very specific technical information including loading/bending strength data.

Thickness range 3mm up to 50mm.

Special thin panel range (0.4mm-6.0mm).

Applications - construction, roofing, flooring, wall panelling, shop & bar fitting, furniture, pattern making, vehicle body building, laminating, veneering, musical instruments, laser cutting, toy & model making, engineering.



H SP101 Flooring Plywood®

Manufactured with specific attention to accurate dimensional tolerances and surface quality. **Fully compliant with BS 8203:2017- Plywood Annex A.**

To find out more you can visit SP101.CO.UK

Applications - flooring underlay, laminating, veneering, joinery, furniture, shop & bar fitting.



H POPLAR PLYWOOD

PANGUANETA
Plywood For Life

Poplar/Ilomba construction giving significant weight saving and very high quality faces.

A No Added Formaldehyde (NAF) variant of this product is available.

Applications - caravans, motorhomes, leisure vehicles, boat/yacht building, laminating, veneering, furniture, shop & bar fitting, exhibitions, scenery & staging, general joinery.



H SOFTWOOD Plywood

Practical panels comprised of coniferous tree species and created with structural purposes and applications in mind.

Applications - construction, packaging, roofing, flooring, hoarding, formwork, container lining, fencing, wall sheathing.



H FIRE RETARDANT Panels

A range of plywood is available with either **Euroclass C** or **Euroclass B** fire performance if required.

Applications - entrances/foyers, offices, public libraries, schools, court houses, hospitals, cinemas, shopfitting, bar fitting, shipbuilding applications.



Design & Technical Information

EN 636:2012+A1:2015 Plywood-Specifications

The most recent edition of BS EN 636 retains the designations -1, -2 and -3 from the previous three part standard to represent dry, humid or exterior conditions of use.

These conditions are defined according to the parameters laid down for Use Classes in BS EN 335 'Durability of wood and wood-based products - Use Classes: definitions applicable to solid wood and wood products.'

EN 636 also introduces bending strength and modulus classes based on bending tests to EN 310.

These designate strength (F) and modulus (E) parallel and perpendicular to the face grain. An example designation would therefore be F10/20.

EN 636 provides minimum values for each of the classes and EN 12369-2 gives corresponding characteristic values for use with each of these classes.

Plywood for use in construction must demonstrate compliance with the Construction Products Regulation (CPR). The most straightforward route to achieving this is by demonstrating compliance with EN 13986, which also involves the application of a CE mark.

The properties required of panels in EN 636 are shown in the table below:

| Property | Application | Standard | 1 - Dry | 2 - Humid | 3 - Exterior |
|------------------------|---|---------------------------------------|---|--|---|
| | | | 20°C with R/H 65% Interior applications no risk of wetting | 20°C with R/H 85% Protected exterior applications or humid environments | Moisture content higher than 20% Unprotected exterior applications |
| Bonding Quality | | EN 314-2 | Bonding Class 1 | Bonding Class 2 | Bonding Class 3 |
| Durability | | EN 335 | Use Class 1 | Use Class 2 | Use Class 3 |
| Mechanical Properties | Structural - characteristic values - bending strength | EN 12369-1 or EN 789/EN 1058 EN310 | ✓ | ✓ | ✓ |
| | Non structural - bending strength | EN 310 | ✓ | ✓ | ✓ |
| Formaldehyde Emission* | Construction | EN 13986 | E1 or E2 | E1 or E2 | E1 or E2 |
| | Non-construction | EN 636/DD ENV 717-1/EN 717-2 | E1 or E2 | E1 or E2 | E1 or E2 |
| Dimensional Tolerance | | EN315 | ✓ | ✓ | ✓ |

*All Timber Trade Federation (TTF) members adhering to the TTF Code of Conduct - Panel Products Code of Practice must trade in products that meet E1 Classification. Formaldehyde emissions higher than E1 are not acceptable.

Plywood for permanent use in construction must demonstrate compliance with the Construction Products Regulation (CPR) via the use of CE Marking.

*This table is designed for guidance only and all specific performance requirements for particular projects should be cross checked in detail.

Decision Making Guidance

- Consider the performance required of the component and duration of service life.
- Determine the Use Class of the situation in which the wood-component will be used and the biological agencies that threaten it.
- Assess whether the durability of the plywood to be used is sufficient. If not, select for the component a more durable type of panel or choose another solution such as design or preservative protection.
- The specification and application of plywood for Use Class 3 should take into account the importance of sealing the edges of panels in order to achieve optimum levels of performance.
- Where a project has specific requirements in terms of face grade, grain and colour please contact us directly to discuss details.



Please contact us for expert technical advice relating to your particular project.

An interactive reference resource is available at:
www.theplywoodspecifiersguide.co.uk

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