

## SmartPly OSB3

SmartPly OSB3 is a highly engineered, moisture resistant load-bearing panel designed for use in humid conditions and is therefore ideal for many structural and non-structural applications in both internal and protected external environments. Manufactured in accordance with EN 300 performance standard, it is the perfect choice for roofing, flooring, wall sheathing, site hoarding and many other applications where strength and moisture resistance are paramount.



### Quality and Environmental Certification:

SmartPly OSB is manufactured in accordance with the requirements of EN 300: *Oriented Strand Boards (OSB) – definitions, classification and specifications*.

SmartPly OSB is CE marked in accordance with the harmonised standard EN 13986: *Wood-based panels for use in construction – characteristics, evaluation of conformity and marking*. This standard is a technical specification for wood-based panels which implements the provisions of the Construction Products Regulation (CPR) formerly the Construction Products Directive (CPD). In addition to the CE mark, SmartPly OSB panels are marked 2+ Structural for ease of reference.

SmartPly OSB3 is certified by the British Board of Agrément (BBA) and the Irish Agrément Board (IAB). Due to this certification it is permitted for structural use by NHBC (UK) and Homebond (Ireland) when used in accordance with the requirements of the Building Regulations in the country of

use. Other quality certification includes SINTEF (Norway) and KOMO (Netherlands).

SmartPly has achieved I.S. EN ISO 9001:2008, the internationally recognised quality management system which is certified by the National Standards Authority of Ireland (NSAI).

SmartPly has Forest Stewardship Council (FSC) Chain of Custody certification for its manufacturing, processing, sales and distribution processes.

SmartPly operates under an Integrated Pollution Prevention Control (IPPC) licence, which is monitored by the Environmental Protection Agency (EPA) in Ireland.

All SmartPly OSB3 products are manufactured using formaldehyde-free resin.

**Suitability:** EN 300 classifies OSB panels by their properties which relate to their intended use. SmartPly OSB3 is classified as a load-bearing panel for use in humid conditions.

Structures comprising SmartPly OSB3 should be assigned to service class 1 or 2 as defined in EN 1995-1-1 (Eurocode 5). According to this standard, SmartPly OSB3 is suitable for use in both of these service classes.

Moisture conditions can affect the performance of wood-based panels. Therefore, it is important that the correct type of OSB is specified for a particular service class. Always check current regulations specific to the country of use.

As well as conditions in service, consideration must also be given to the construction phase where high levels of moisture or humidity often exist. Consideration should also be given to end-use applications that may be at risk of short-term wetting, such as from burst water pipes or leaking appliances. In such conditions SmartPly strongly recommends the use of OSB3.

According to EN 300, SmartPly OSB3 is suitable for use in Use classes 1 and 2 of EN 335. Furthermore, SmartPly's innovative OSB3 SiteProtect (coated hoarding panel) is suitable for use in Use class 3 of EN 335.

**Specification and design:** As design values can vary between manufacturers, it is important to ensure that the SmartPly OSB3 panels specified by the designer are those used on site. All SmartPly panels are clearly marked with the following information:

- (a) Major axis (length of panel, direction of laying arrows)
- (b) Production identification number
- (c) Product Certification mark (e.g. BBA, IAB)
- (d) CE marking
  - i. Manufacturer's name / Logo (SmartPly)
  - ii. Notified body identification number
  - iii. Quality standard (EN 300, EN 13986)
  - iv. Panel type (e.g. OSB3)
  - v. Thickness (e.g. 18mm)
  - vi. Formaldehyde class (e.g. E1)
- (e) Additional marking for ease of reference (e.g. 2+ structural)
- (f) FSC certification

**Note:** Markings may vary depending on product type.

### **SmartPly OSB3 - Zero added formaldehyde:**

SmartPly OSB3 is manufactured using advanced resin technology that results in a high performance, zero added formaldehyde panel that scores highly in 'The Green Guide to Specification' (see below).

This specialist resin formulation provides a supreme bond with the wood strands as it has a reaction with the wood itself, when put under intense heat, creating a chemical weld. This is a different and superior type of bond to the mechanical weld that formaldehyde-based products exhibit. Depth of penetration is well beyond the minimum 0.3 mm needed for a wood resin to provide adequate adhesive strength. This extra resin penetration also greatly improves the wood's resistance to thickness swell.

### **SmartPly OSB3 and 'The Green Guide to Specification':**

'The Green Guide to Specification' provides designers and specifiers with robust information to assist decision-making by translating numerical life cycle assessment data into simple A+ to E scale of environmental ratings, enabling specifiers to make the best environmental choices when selecting construction materials and components.

Since 1998, The Green Guide has formed part of the BRE Environmental Assessment Method (BREEAM), EcoHomes and more recently The Code For Sustainable Homes, becoming a leading construction-embodied impact assessment tool.

Specifiers using The Green Guide will be aware that OSB3, of which SmartPly is a market leading supplier, consistently scores well for overall environmental impact. Numerous examples are given in the guide where OSB3 contributes to an overall summary rating for elements of A and A+ and as a result consistently score better than those same elements in which plywood is specified.

SmartPly OSB3 has been independently assessed and meets the BREEAM requirement relevant to formaldehyde testing and therefore under section 'Hea 9 – Volatile Organic Compounds' can be awarded the maximum available 1 credit.

A Guide published by Greenpeace in August 2008, titled: 'Setting a New Standard: Alternatives to unsustainable plywood in the UK construction industry', has cited FSC certified Oriented Strand Board (OSB), of which SmartPly is a market leading supplier, as one of the most environmentally sound alternatives to non-FSC certified plywood for all manner of building projects.