

## Technical Product Information

### 1.1. General

#### 1.1.1. Safety instructions

Wear safety gloves, goggles, hearing protection and respiratory protection when using power tools (e.g. sawing or sanding) on the product. Adhere to safety instructions, belonging to your tools. Keep your tools away from children.

#### 1.1.2. Transportation

When the product is transported, please take care of the following: The product must be laid on a flat and stable surface. The product must be kept dry. Provisions must be made to prevent the product from sliding or falling.

#### 1.1.3. Storage

The product must be laid on a flat and stable surface. At least 72 hours prior to installation, the product must be placed in the room, where it is to be used, to allow for acclimatization.

#### 1.1.4. Important

The manufacturer assumes no responsibility for possible damages, caused by disregard of the instructions, pertaining to transportation, storage, installation and the following use of the product, or from other disadvantageous factors, unknown to the manufacturer. Even though our products are inspected many times, some deficiencies may occur. (In up to 5% of the boards)

#### 1.1.5. Intended use of the product

This product is for indoor use. It has no load bearing capacities, therefore the sub floor must be sound and stable. If you want to use this product on sub floor heating, please observe the relevant additional instructions. This product can not be used in high humidity areas such as bathrooms. The product is suitable for DIY installation, but installation by a professional is advised. In any case the installation instructions must be observed carefully.

### 1.2. Dimensions and tolerances

(these dimensions and tolerances apply to the product at the time of first delivery)

Covering length	Various	+2 / -0 mm
Covering width	Various	+0,2/-0,2mm
Thickness	20 mm	+0,2/-0,1mm
Edges	Square edge	
	Micro bevel 1,4 mm	
	Standard bevel 2,3 mm	
Cup (max.)	0,36 mm	
Squareness dev.	<0,2% over the width	
Bow (max.)	25 mm	
Spring (max.)	1,5 mm	
Lipping (max.)	0,2 mm	
Specific gravity	670 - 820 kg/m <sup>3</sup>	
	12,8 -16,4 kg/m <sup>2</sup>	

Flooring product series are composed of;

Duo-Plank	180 mm width
Duo-Plank	240 mm width

These series are available in several standard lengths (opposite).

Wood species	Length in mm.
Afrormosia	1790 / 2100 / 2400
Azelia Doussie	1790 / 2100 / 2400
American black cherry	1790 / 2100 / 2400
American black walnut	1790 / 2100 / 2400
American white oak	1790 / 2100 / 2400
Burma Teak	1790 / 2100 / 2400
Canadian hard brown maple	1790 / 2100 / 2400
Canadian hard white maple	1790 / 2100 / 2400
Curupixa (Robijn)	1790 / 2100 / 2400
European ash	1790 / 2100 / 2400
European oak	2100 / 2220 / 2470
Ipe	1790 / 2100 / 2400
Iroko	1790 / 2100 / 2400
Jatoba	1790 / 2100 / 2400
Merbau	1790 / 2100 / 2400
Muiracatiara	1790 / 2100 / 2400
Old pitch pine	1790 / 2100 / 2400
Sucupira	1790 / 2100 / 2400
Wenge	1790 / 2100 / 2400
Zebrano	1790 / 2100 / 2400

and can be delivered with the following bevelling,

Wood species	Beveling options
Afrormosia	SE, MB
Azelia Doussie	SE, MB
American black cherry	SE, MB
American black walnut	SE, MB, SB
American white oak	SE, MB, SB
Burma Teak	SE, MB
Canadian hard brown maple	SE, MB, SB
Canadian hard white maple	SE, MB, SB
Curupixa (Robijn)	SE, MB, SB
European ash	SE, MB
European oak- Premier/ 1-bis	SE, MB, SB
European oak - Country	SE, MB, SB
European oak- Rustic	SE, MB, SB
European oak - Prime	SE, MB
European oak - Markant	SE, MB
European oak - Nature	SE, MB
Ipe	SE, MB
Iroko	SE, MB
Jatoba	SE, MB, SB
Merbau	SE, MB, SB
Muiracatiara	SE, MB
Old pitch pine	SE, MB
Sucupira	SE, MB, SB
Wenge	SE, MB
Zebrano	SE, MB

SE Square Edge (not bevelled)

MB Micro Bevel

SB Standard Bevel

All bevels on the 2 long sides of the board. On request a micro bevel on the head ends.

## Technical Product Information

### 1.3. Influence of moisture

Moisture is the most important factor in wood shrinkage, swelling and warping. When the moisture content of wood rises, it swells. It shrinks when wood moisture content drops. This phenomenon is most significant in the directions perpendicular to the wood grain. Along the wood grain it is negligible. Because this product has a plywood base, in which the layers are perpendicular to each other, it is much less subject to swelling and shrinkage than solid wood boards. Nevertheless, large changes in wood moisture content can lead to cracks in and splits between boards.

It is important, that the sub floor is and remains dry, that when cleaning the floor a minimum of water is used, (use a damp cloth; never a wet one) and that the air moisture content (relative humidity) is not subject to large fluctuations. The relative humidity must be between 40 and 60%.

### 1.4. Materials/composition

#### 1.4.1. Base layer

Quality Flooring products have a 15mm plywood base layer. This base layer consists of 7-11 layers of peeled veneer, with mutual perpendicular wood fiber accommodation in adjacent layers.

#### 1.4.2. Glue

The top layer is bonded to the base layer by means of a PVAC glue.

#### 1.4.3. Top layer

Solid hardwood is used as top layer. Several hardwood species and grades available. Wood defects, if any, may be filled with an epoxy filler.

### 1.5. Release of formaldehyde

Flooring products are rated E1 for formaldehyde. This is the best (lowest) emission class.

### 1.6. Flame spread

Flame spread: Under investigation.

### 1.7. Sub floor heating

Most flooring varieties can be used with sub floor heating under certain conditions. Ask your supplier. More information on sub floor heating is given in V.A. Hutchisons installation information.

Thermal conductivity:  $A=0,17 \text{ W/mK}$  (applies to 20mm./ 3/4" thickness)

Thermal resistance:  $R_c=0,12 \text{ m}^2\text{K/W}$  (applies to 20mm./ 3/4" thickness)

Thermal conductivity:  $A=0,17 \text{ W/mK}$  (applies to 15mm./ 5/8" thickness)

Thermal resistance:  $R_c=0,9 \text{ m}^2\text{K/W}$  (applies to 15mm./ 5/8" thickness)

### 1.8. Relevant European standard

EN 13489:2002 - Wood flooring - Multi layer parquet elements

Wood species	Hardness Janka (N)	Hardness Brinell
Afromosia	7600	n.a.
Azelia Doussie	8200	n.a.
American black cherry	4630	n.a.
American black walnut	4500	3.4
American white oak	6050	3.7
Burma Teak	4450	n.a.
Canadian hard brown maple	6460	n.a.
Canadian hard white maple	6460	4.8
Curupixa (Robijn)	5250	3.5
European ash	6140	n.a.
European oak	6280	3.8
Ipe	16700	n.a.
Iroko	5600	3.5
Jatoba	10400	7.0
Merbau	8670	4.9
Muiracatiara	9607	n.a.
Old pitch pine	5000	n.a.
Sucupira	8750	5.6
Wenge	10600	8.1
Zebrano	7005	n.a.

n.a.: not available