

**EURO OAK**

**Type: Hardwood**

**Source: European**

The grain of European Oak is golden-brown in colour, which makes it a popular option for those looking for a more traditional style. Oak is naturally very durable, it machines well, but is more difficult to work with than softwoods. Steel screws should be used as oak reacts with iron. With higher density, oak timber is not only heavier, but also stronger and more durable. The toughness of Oak timber makes it a perfect material for exterior cladding, as it can withstand any weather conditions. Oak timber will also resist the other forces of nature, such as fungal attacks, termites, and moisture.



**Embodied Carbon (kgCO<sub>2</sub>e / m<sup>2</sup>)\* = 0 (10.37 Offset)**

### Ecova Clad Euro Oak Durability Classification

Common name		Natural Durability Class BSEN350:2:1994	Movement	Strength
Temperate hardwoods	European Oak	2 to 4	Medium	High

### Durability Classifications

Natural durability class	Need for treatment/modification	Desired service life (years)	
		Occasionally wet	Frequently wet
1 (Very durable)	Suitable without treatment	>60	60
2 (Durable)	Suitable without treatment	60	30
3 (Moderately durable)	Suitable without treatment except for tall or exposed buildings	30	15 (untreated)
4 (Slightly durable)	Treatment required	15-30 years treated	15-30 years treated
5 (Not durable)	Treatment required	15-30 years treated	15-30 years treated

### Treatments and Finishing

- Accepts application of stains and paints.

### Moisture Movement

Medium

Kiln-dried to 16–18% moisture content.

Wood's moisture content will change relative to its surroundings. Different species have different degrees of movement and this must be accounted for in cladding design.

Good design and installation practice will help minimize the effects of moisture:

- Use eaves and overhangs to deflect rain - or flashing to protect the board tops
- Finish cladding at least 200mm from the ground or a horizontal surface. Where possible use a surface that diffuses rain, such as gravel
- Board widths should generally be 4 to 6 times board thickness (typically less than 150mm)
- Design detailing must include measures that minimise water penetration

### Profiles

Wide choice of standard profiles (see Ecova Clad profiles guide)

### Density (mean, Kg/m<sup>3</sup>):

670+ kg/m<sup>3</sup>

### Recommended Fixings/Flashings

Austenitic stainless steel fixings are recommended. Oak tends to corrode metals due to its acidity, and a black/blue stain can appear in contact with metal. Stainless steel fixings are recommended. Screw fixings should be at least 40mm from the end of the boards to avoid splitting.

### Colour(s)

Yellowish to golden brown, ages to silver grey if left unprotected

### Fire compliance

**Exterior cladding** - Timber cladding is suitable for buildings of 18m or lower. No combustible materials are permitted for cladding on residential buildings over 18m high.

### Environmental

European Oak is only sourced from managed forests.

\*The embodied carbon calculation does not account for final delivery to site