

1. PRODUCT DESCRIPTION

Iroko (*Chlorophora excelsa*) is a high-performance hardwood species native to the tropical forests of West Africa, known for its natural durability and warm coloration. Kiln-dried Iroko offers long-lasting performance in both interior and exterior applications. Thanks to its natural composition, it is highly resistant to termites, fungi, and marine borers. With excellent dimensional stability, hardness, and distinctive grain texture, it meets both aesthetic and technical demands.

2. GENERAL CHARACTERISTICS

Property	Specification
Wood Name	Iroko
Botanical Name	<i>Chlorophora excelsa</i>
Origin	West, Central, and East Africa
Treatment Type	Kiln Drying
Color (Fresh)	Yellowish amber to light brown
Color (Over Time)	Matures to dark brown
Density (Kiln-Dried)	660–690 kg/m³
Thermal Conductivity	0.099 W/m·K
Natural Durability	Very High (Class 1)
Modulus of Elasticity (MOE)	10,420 – 13,550 N/mm²
Bending Strength (MOR)	55 – 60 N/mm²
Hardness (Brinell)	~40 N/mm²

3. DRYING PROCESS

Kiln-dried Iroko is processed to achieve a moisture content of **9–12%**. This procedure enhances the internal stability of the wood, minimizing the risks of cracking, warping, and deformation. The removal of internal moisture and extractives during drying also increases its biological resistance.

4. PHYSICAL PROPERTIES

Property	Value
Moisture Content	9–12%
Dimensional Stability	High
Radial Shrinkage	2.1% – 3.5%
Tangential Shrinkage	4.0% – 5.2%
Volumetric Shrinkage	11.0%
Thermal Expansion	Low
Thermal Conductivity (λ)	0.099 W/m·K

5. APPLICATION AREAS

Exterior Applications:

- Façade cladding
- Decking systems
- Garden furniture
- Pergolas and verandas

Interior Applications:

- Flooring and parquet
- Stair treads
- Doors, windows, and joinery
- Decorative panels and table production

6. WORKABILITY AND ASSEMBLY

- Iroko is easy to work with; however, its high fiber density can dull cutting tools quickly.
- Stainless steel fasteners are recommended for screwing and nailing.
- Suitable for bonding with **PU** and **MUF adhesives**.
- Compatible with both oil-based and water-based surface finishes.
- Can be produced in **profiles, finger-jointing, solid timber, laminated timber, and panel formats**.

7. ENVIRONMENTAL IMPACT AND SUSTAINABILITY

- 100% natural, chemical-free
- Fully recyclable and biodegradable
- Available from **FSC-certified sources**
- Low carbon footprint
- Naturally resistant to termites and biological agents

8. STORAGE AND MAINTENANCE

- Should be stored in dry areas, away from direct sunlight and humidity.
- Tends to develop a natural silver-grey patina when exposed outdoors — a valued aesthetic feature.
- Regular oil maintenance is recommended for exterior applications.

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