

# DESIGN — THERMALLY MODIFIED WOOD PRODUCTS

## COOP — FREQUENTLY ASKED QUESTIONS

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### 1 WHAT IS THERMALLY MODIFIED WOOD?

Thermally modified wood is a natural timber material modified through exposure to high heat and steam (180–212°C) without the use of chemicals. This process alters the cellular structure of the wood, making it more durable and dimensionally stable.

### 2 WHAT IS THE DIFFERENCE BETWEEN THERMALLY MODIFIED WOOD AND KILN-DRIED WOOD?

Kiln-dried wood is dried to reduce its moisture content, while thermally modified wood is heat-treated to enhance biological durability. Thermally modified wood reaches a moisture content of 4–6%, has high resistance to decay and fungi, and requires less frequent maintenance.

### 3 WHAT ARE THE ADVANTAGES OF THERMALLY MODIFIED WOOD?

- Resistant to decay and fungal attacks
- Low water absorption and high dimensional stability
- Chemical-free; safe for both people and the environment
- Natural, aesthetic appearance with warm tones
- Requires less maintenance and has a long service life

### 4 HOW LONG DOES THERMALLY MODIFIED WOOD LAST OUTDOORS?

Depending on usage conditions, thermally modified wood can last 20–30 years outdoors. Its lifespan can be extended further with UV-protective oils and regular maintenance.

### 5 HOW IS THERMALLY MODIFIED WOOD MAINTAINED?

- A UV-protective oil should be applied after initial installation.
- Maintenance oil should be reapplied every 2–3 years to refresh color and protection.
- If natural greying is acceptable, the maintenance interval can be extended to 3–5 years.

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### 6 WHY IS THERMALLY MODIFIED WOOD BETTER THAN COMPOSITE OR PLASTIC ALTERNATIVES?

It offers a natural look and feel, without the artificial appearance of plastics. It's chemical-free, recyclable, environmentally friendly, and easier to work with. It also provides a naturally aesthetic finish.

### 7 WHICH WOOD SPECIES ARE USED TO PRODUCE THERMALLY MODIFIED WOOD?

DC Design Coop uses a variety of wood species such as Pine, Ash, Ayous, and Iroko in its thermally modified wood products.

### 8 DOES THERMALLY MODIFIED WOOD CRACK OR WARP?

The thermal process reduces internal stresses within the wood, significantly lowering the risk of cracking, warping, or cupping.

### 9 IS THERMALLY MODIFIED WOOD EASIER TO MAINTAIN THAN OTHER TYPES OF WOOD?

Yes. Its maintenance interval is 1 to 1.5 times longer than kiln-dried or pressure-treated wood, meaning it requires less frequent upkeep.

### 10 IS THERMALLY MODIFIED WOOD RECYCLABLE?

Yes. It's 100% natural and chemical-free, making it easy to recycle or safely dispose of at the end of its life cycle.

### 11 IS THERMALLY MODIFIED WOOD ENVIRONMENTALLY FRIENDLY?

Absolutely. It is produced from sustainably sourced timber and contains no chemicals throughout the production process.

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### IS THERMALLY MODIFIED WOOD MORE EXPENSIVE THAN OTHER WOOD TYPES?

While the initial cost may be higher than kiln-dried or pressure-treated wood, its lower maintenance requirements and longer lifespan reduce the total cost of ownership

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### WHERE CAN THERMALLY MODIFIED WOOD BE USED?

It is ideal for various outdoor applications such as exterior cladding, decking, pergolas, shutters, garden furniture, and verandas.

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### CAN THERMALLY MODIFIED WOOD BE PAINTED OR VARNISHED?

Yes, but transparent UV-protective oils are generally recommended to preserve the natural texture. Opaque finishes can be applied but may cover the wood's natural grain.

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### WHY CHOOSE DC DESIGN COOP THERMALLY MODIFIED WOOD PRODUCTS?

- Certified with international quality standards (EN, CE, ISO 14001)
- Used in prestigious projects across Turkey and abroad
- Offers a wide product range and technical support
- Provides showrooms and training support for partners
- Delivers sustainable and aesthetic solutions inspired by wood

