



#### What is Premium MDO?

Premium MDO is a high-quality performance shuttering plywood for horizontal and vertical construction use to meet the European Union Construction Product Directive EN 13986 CE2+ structural level.

#### **Construction:**

The base panel for Premium MDO shuttering plywood is made with selected A grade Eucalyptus veneers in 11 layers. The core veneers are whole sheets or machine edge jointed whole sheets. All the core veneers are Kiln Dried and constructed in a crosswise way. All these guarantee the high performance and stability of the product.

## **Gluing:**

The Premium MDO is produced with the phenol resin adhesive to meet EN314-2 class 3 for exterior use. The formaldehyde emission is E1.

#### **Surfaces:**

High quality MDO paper is used for the front face. The back face is dark brown 120g/m<sup>2</sup> smooth phenolic resin film.

#### **Edges:**

All four edges are sealed with acrylic resin paint to resist water for longer.

# **Delivery:**

Premium MDO shuttering plywood is delivered in a standard pack of 50 sheets packaged to withstand delivery, handling and storage. On opening the pack it is better to use two persons for handling of the sheets, which will help to avoid any edge damage and ensure safe fitting and positioning.

# **Usage in Concrete Formwork:**

During the formwork construction process, you can use as whole sheets, if it is necessary to cut the Premium MDO shuttering plywood into form sizes, we recommend painting the freshly exposed edges with a sealant to avoid water absorption. To fix the Premium MDO shuttering plywood you can use nails. These fixings should be well set in from the panel edge. When de-assembling from the concrete formwork, avoid the use of steel crowbars etc., and substitute them with wooden tools to prevent unnecessary surface depression and increase re-use potential.

#### Lift time:

Frequency of use depends on many factors acting on the formwork sheet. To ensure the maximum number of uses, the above-mentioned tips should be strictly followed. Premium MDO shuttering plywood can achieve up to 20 uses with good handling. Clean panels carefully after every use. Handle panels with care to get maximum re-uses.

## **Storage:**

Full packs of Premium MDO shuttering plywood, as well as individual sheets or pieces cut to size, should be protected against rain and direct sun if possible to help maintain flatness.

#### **Environment:**

All the veneers originate from local farmers plantation forestry. These plantations are FSC® certified.

#### **Certifications:**

Premium MDO is CE and FSC certified.

Available sizes: 2440x1220x18mm

## **Technical Data Sheet**

Specification 2440x1220mm	Weight/Sheet kg	fm (En310) (N/mm²)		Em (En310) (N/mm²)	
		II	Т	II	Т
18mm	32.15	39.0	45.0	5100	6500
Thickness Tolerance	0.5mm				
Length Tolerance		1.0mm			
Width Tolerance		1.0mm			
Mositure Content		8 - 12%			
Glue Bonding		Exterior Glue to meet EN314-2, Class 3			
Formaldehyde Emission		E1			

Em means flexural modulus of elasticity in blending.

fm means flexural bending strength.

# How to use release agent with MDO

### **Treatment before first use:**

Premium MDO panels should be thoroughly treated with a suitable release agent and often twice before their initial use.

## Treatment before each subsequent pour:

A fresh coat of release agent is applied before each concrete pour to ensure easy release.

## Type of release agent:

Chemically active release agents are often recommended for MDO panels.



In summary, using a release agent with MDO is crucial for achieving good formwork performance, ensuring clean concrete finishes and maximising the reusability of the panels.

The MDO panels are constructed with the grain direction of the outermost (face) veneers running parallel to the long edges of the panel. Therefore, boards should always be used with the long edges parallel to the span direction to minimise deflection of the shuttering.

## **Storage**

When first exposed to the prevailing weather conditions at site and during the early uses of the boards, there is likely to be some localised swelling of the wood veneer caused by moisture pickup, which may leave impressions in the face of the concrete.

To prevent this: store the panels in dry conditions, flat on a level surface, off the ground and direct sunlight, preferably indoors or under the shed.

Panels should be stored horizontally on a firm base with enough bearers to prevent sagging. The stacks should be covered to protect top and edges from moisture penetration as fluctuations in temperature and humidity may cause panels to distort.

- Cutting of the plywood should be carried out using a fine toothed saw
  to minimise break out of the wood veneer or film on the back of the
  panel. Likewise, tie bolt holes should be piloted and then drilled from
  both sides, not drilled right through from one side only.
- All cut edges and tile both holes should be painted with at least 2 coats of water-resistant paint.
- Apply a suitable filling compound or mastic to joints between panels to minimise slurry loss.
- For fair face concrete, the plywood should be fastened to the form from the back of the panel.
- Pre-treat the formwork panels liberally with a suitable release agent before every use to ensure cleaner striking of the forms and more reuses.
- Seal screw holes with silicone to prevent moisture absorption.

#### Reuses

The typical number of reuses is likely to be in the range of 5-10 times. The actual number of reuses will depend on several factors other than the plywood; this will vary according to many different factors including:

- Good site practice
- Required concrete finish
- Amount of care taken
- Handling the storage of panels
- Type and quality of the release agent used on the panels before concreting.

The number of times the plywood can be reused is only intended as an approximate guide. It does not imply any form of warranty.



Call your regional sales office for a quote:

North & Midlands: **0121 265 4822** 

birminghamsales@premierforest.co.uk

Cirencester & Creeksea: 01959 562181 creeksea@premierforest.co.uk

West Wales:

01437 760 890 westsales@premierforest.co.uk

South Wales & West: 01633 254 422 sales@premierforest.co.uk

London & South East: 01895 253491 londonregionalsales@premierforest.co.uk

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sales@premierforest.co.uk www.premierforest.co.uk

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