

STRUCTA™

BUILD STRONG BUILD STRUCTA™

**FORMWORK SPECIFICATION
AND INSTALLATION GUIDE**

STRUCTAply™
FORMWORK

PRODUCT INFORMATION

Product Identification

STRUCTAply™ Formwork identification codes describe the construction of each panel.

Example: 17-24-7

17 – nominal panel thickness (mm)

24 – face veneer thickness (2.4mm)

7 – number of plies (veneers) in the panel

These codes allow designers and formworkers to quickly identify the structural properties and performance characteristics of each panel type.

Technical Specification

STRUCTAply™ Formwork is structural plywood manufactured to AS 6669 and can be designed using AS 1720 Timber Structures to meet the performance requirements of AS 3610 formwork for concrete.

Construction

- **Bond type:** Type A (Marine) (AS/NZS 2098 and AS 2754)
- **Length/width tolerance:** ± 1.5 mm
- **Thickness tolerance:** For 7mm $\pm 7\%$, For 17mm $\pm 4\%$, for 25mm $\pm 3\%$ (overlay not included)
- **Edge straightness:** 1 mm
- **Squareness:** 3mm (difference in diagonals)

Storage

Correct storage and handling help maximise the lifespan and reusability of STRUCTAply™ Formwork panels.

Store panels under cover in a dry, well-ventilated area and stack them flat on evenly spaced bearers so they remain clear of the ground. Panels should be handled carefully to avoid edge damage, and any cut edges should be sealed with acrylic paint.

If sheets become wet, separate them with spacers to allow airflow and proper drying.

Proper storage helps reduce distortion and maintains panel performance on site.

Product Details

Thickness: 7mm, 12mm, 17mm and 25mm

Surface Qualities: Manufactured to a CC grade standard

Identification: Phenolic resin medium density overlay surface with grey painted edges. The plywood identification code is also stamped on the pack to outline the structural properties

Resin: Type A - Phenol formaldehyde

Treatment: Untreated bond

Emissions: Formaldehyde emissions are less than 0.3 mg/L, equivalent to Super E0 classification

The Facts That Matter

- Durable and reusable for multiple concrete pours
- Provides a smooth off-form finish
- Suitable for a wide range of formwork systems including table and jump forms
- Compatible with timber and steel form frames
- Lightweight compared with traditional hardwood alternatives
- Engineered and certified for structural reliability
- Manufactured from sustainably sourced timber

These features combine to deliver a versatile, cost-effective formwork solution for both commercial and civil construction projects.

PRODUCT INSTALLATION

Framing and Sheet Orientation

Framing centers depend on the panel thickness, stress grade and direction of the face grain relative to the span. Allow approximately 2-3mm expansion gaps between panels to accommodate moisture related movement. Joint sealers or compressible fillers may be used where required.

For maximum performance, sheets should be installed with the face grain perpendicular to the span (across joists). Reference Figure 1.

Stress Grades and Properties

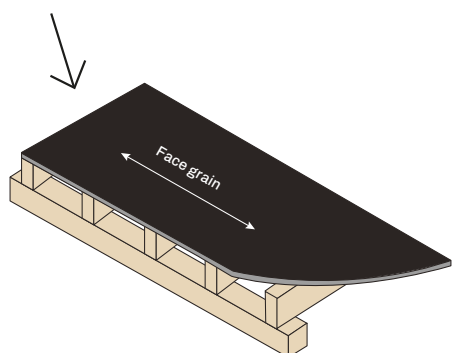
Table 1: Stress Grades and Section Properties for Standard Formwork Constructions

Thickness (mm)	Stress grade	ID Code	Surface Overlay GSM	Parallel to face grain		Perpendicular to face	
				Moment of inertia	Section Modulus	Moment of inertia	Section modulus
				I (mm ⁴ /mm)	Z (mm ³ /mm)	I (mm ⁴ /mm)	Z (mm ³ /mm)
7	F8	7-24-3	240/420	30	8.3	2.1	1.0
12	F11	12-24-5	240/420	115	19	33	8.3
17	F14	17-24-7	240/420	285	33.5	122	19
25	F11	25-30-9	240/420	900	70.5	380	38.0

Table 2: Bending Radi

Thickness (mm)	Along Face (m)	Across Face (m)
7	1.8	1.0

FIGURE 1. FACE GRAIN PERPENDICULAR TO SPAN (ACROSS JOISTS)



PRODUCT INSTALLATION

Formwork Assembly

The objective of fixing the elements of a formwork assembly is to provide a strong, rigid form that allows ease of handling, erection, and stripping. Effective formwork design should hold joints tightly together, secure the plywood and framing to create a rigid structure, and allow easy dismantling and reuse of materials.

Using appropriate release agents, edge tapes, and perimeter fixing can help achieve a Class 2 concrete finish; however, a Class 2 finish can only be assured for one pour per face, as the condition of the face after the first pour depends on how it is handled afterwards. It may also be necessary to provide test panels if a Class 2 finish has been specified, as outlined in AS 3610.

Allowing for expansion and contraction of the panels will help avoid buckling, as moisture uptake can increase the panel dimensions, therefore an expansion gap is recommended.

To avoid staining of concrete when forms are used frequently, use hot-dip galvanised or stainless steel fixings, or allow for nails or screws as required.

Table 3: maximum allowable Formply joist spacing for slab soffits

Thickness (mm)	Stress grade	ID Code	Concrete slab thickness					
			100	150	200	300	400	600
			Face grain perpendicular to span (across joists)					
			Maximum allowable joist spacing (mm)					
12	F11	12-24-5	450	400	400	300	300	300
17	F14	17-24-7	600	600	480	480	480	450
25	F11	25-30-9	600	600	480	480	480	450

Release Agents

When Formwork plywood is used to make concrete forms, a release agent can be used, which is a liquid or coating applied to the surface of the formply before pouring the concrete.

The release agent prevents the concrete from sticking to the formply. It creates a thin film or barriers between the wet concrete and the plywood surface.

They should be used sparingly to avoid runs and prevent colour variation in the concrete.

Managing Distortion

STRUCTAply™ Formwork panels are engineered with a cross-laminated construction designed to reduce expansion and contraction. However, most distortion occurs due to exposure to extreme weather conditions on site rather than manufacturing defects.

To minimise bowing or twisting, panels should be stored flat, protected from prolonged moisture exposure, and properly supported during installation. Panels showing distortion greater than 30 mm should not be used and should be returned to the supplier.

Once the panels are on site or installed, it is the responsibility of the formworker to ensure the sheets are maintained flat to achieve the desired off-form finish. Refer to the EWPAA Technical Note "Formwork Plywood for Class 2 and Class 3 Surface Finishes to AS 3610" available online for further guidance.

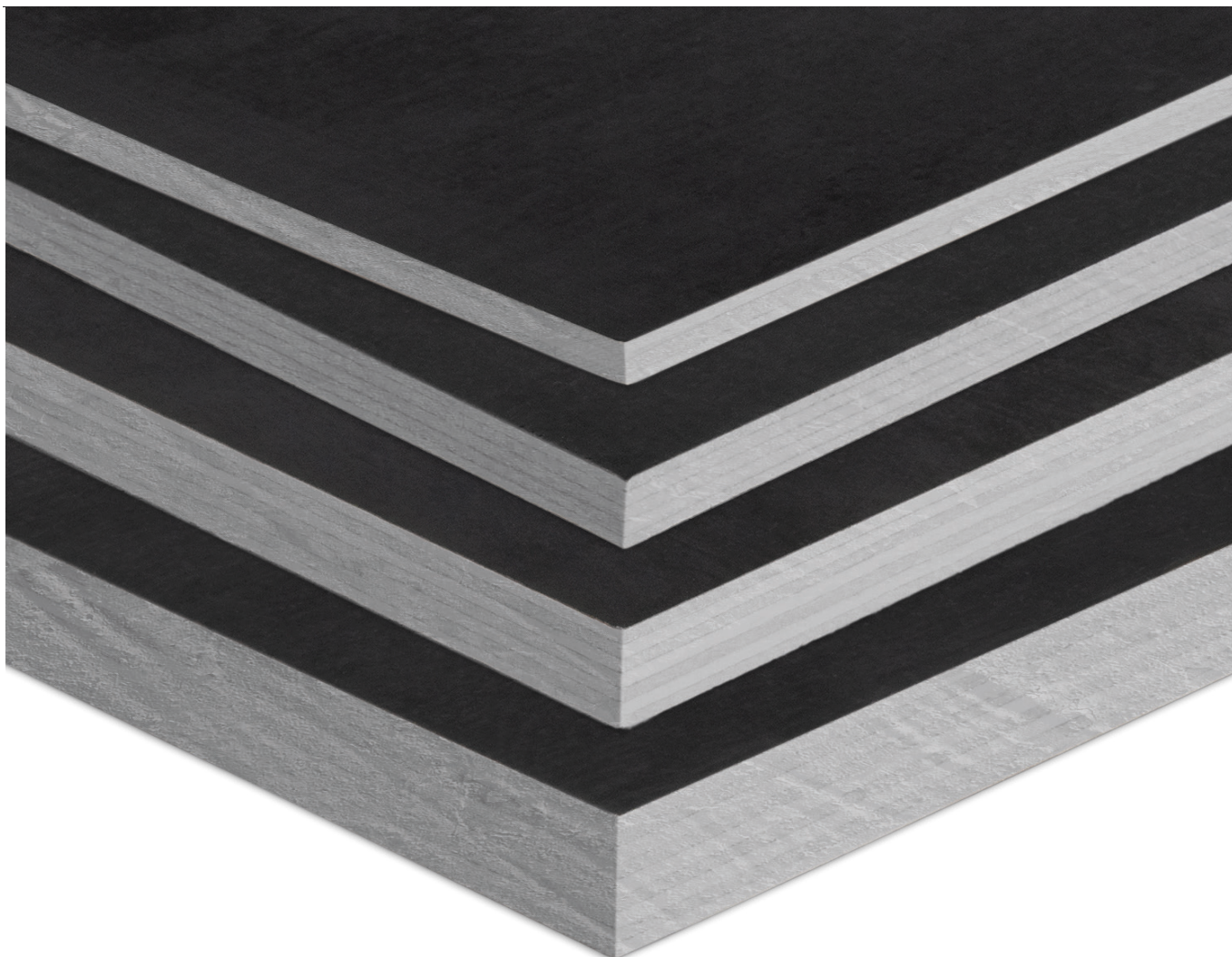
SUSTAINABILITY & CERTIFICATION

STRUCTAply™ Formwork is manufactured using timber sourced from responsibly managed forests and is available with AFS and PEFC Chain of Custody certification upon request. It is manufactured to meet AS 6669:2016 Plywood – Formwork.

STRUCTAply™ Formwork panels are independently certified by the Engineered Wood Products Association of Australasia (EWPA) and comply with the requirements of the Building Code of Australia.

Important Notice

The additional fixing and support details are Product performance depends on correct design, installation and site conditions. Professional engineering or building advice should be obtained where required. Improper installation may lead to reduced performance or site safety risks.



Porta is more than just a timber and panel supplier. We're a trusted partner, delivering purpose-driven products, reliable service, and local expertise. Proudly Australian, we're committed to lasting quality and progress.

The STRUCTA™ range is part of the Porta family. Built on generations of know-how, every product is engineered to perform under pressure and deliver the durability builders trust.

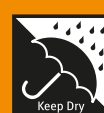
We've long been the backbone of the Australian building industry, driven by a genuine commitment to local manufacturing and getting the job done right. Strengthened by our STRUCTA™ range, we are continuing that legacy and setting the standard for structural building solutions.

Performance you can count on, powered by local knowledge and made to keep your projects moving with confidence.

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