

# KNOW YOUR FORMPLY



## What are my responsibilities as a formworker?

The National Construction Code (NCC) requires structures, both in use and under construction, to

1. perform adequately under reasonably expected design loads and;
2. be designed in such a way that local failure will not affect the stability of the structure as a whole.

In order to achieve this, all formwork must be designed by a qualified structural engineer to ensure that the requirements of the NCC and Australian design standards are met. This design process relies on the materials used for the structure having consistent and reliable properties and the best way to ensure this is to select products that meet Australian product standards, such as AS6669 for Formply. Failure of unsafe and unreliable formwork products cost time and money; and could result in injury or death.

Under Australian law, the manufacturer or importer must ensure that a claim of compliance with a standard is accurate. However, it is the responsibility of the designer or installer to ensure the materials they select are suitable for the proposed application. Evidence of suitability should be retained. A claim of compliance itself may not be sufficient to demonstrate the suitability of the material for a specific application, especially when these claims are difficult to verify. Designers or installers should request evidence from the supplier or manufacturer to support any claim of compliance.

## How do I get the most out of my Formply?

### Choosing your Plywood

Formply is typically covered with an overlay paper to slow water absorption and create a smooth concrete surface; however, there are many different types of plywood overlays and not all of them are suitable for use on formply. AS6669 has strict requirements for the quality of formply overlay to ensure it is water resistant, durable and will not adhere to the concrete. AS6669 also has requirements for surface quality to ensure defects are kept to an acceptable level.

### On-Site Practices

Once an appropriate formply has been selected, on-site practices must be controlled to ensure the desired concrete surface class is met. Most issues related to concrete surface quality are caused by the absorption of water into the formply. Therefore, it is important that the installer takes steps to minimise the risk of water ingress.

These steps include:

1. Identifying damaged formply and removing it from use,
2. Ensuring all cut edges, holes and fixings are resealed prior to pouring, and;
3. Using a release agent to reduce water absorption through the formply face and make it easier to remove the formply.
4. A 2mm expansion gap should be allowed with edge or face sealing tapes.
5. When on site, take care using concrete vibrators to ensure that the surface of the panel is not damaged.
6. Form panels must be lowered, rather than dropped, to avoid face and edge damage.
7. The use of hot-dipped galvanised, alloy or stainless steel nails is recommended to prevent staining.
8. Panels should be stored under cover when not in use and should NEVER be wrapped in plastic.

If these steps are not taken, it can lead to localised swelling of the formply face and wood grain imprinting in the concrete surface, or weakening of the surface layer of concrete making it more susceptible to abrasion. This may lead to a surface class that is less than the desired level. Regardless of site practices, a class 2 finish is generally only achieved on the first pour for each face.

## Why should I choose EWPA certified Formply?

The Engineered Wood Products Association of Australasia (EWPA) is a JAS-ANZ type 5 accredited, third-party certification body focusing exclusively on engineered wood products. The EWPA certifies all formply manufacturers in Australasia and performs six monthly inspections of their manufacturing process and ongoing independent testing of product performance.

The EWPA checks that:

1. The manufacturer has a process control system to achieve consistency of the formply and that the manufacturing requirements of AS6669.
2. The manufacturer has independent test results verifying the claimed properties, including structural properties, durability & overlay quality of their products are met.
3. The manufacturer has an **ongoing verification process** so that its products continue to meet the requirements of AS6669.

As a result, you can be confident that formply from EWPA certified manufacturers meets the requirements of Australian standards. EWPA certified formply is safe, reliable and suitable for use in your next formwork project.

#### Disclaimer:

The advice provided in this publication is general in nature. You should consult the manufacturer of each product for the latest, more accurate information about the product and its use. You should check with the designer or specifier for the project you are working on to ensure the product and its method of installation are suitable for that project. The Engineered Wood Products Association of Australasia Ltd. (EWPA) and its members (listed on our website) will be pleased to answer your queries. We provide this publication to you on condition that we will not be liable for any claim you might make for damage arising directly or indirectly from your use of the information in the publication.

