

IBS Formply

TECHNICAL DOCUMENTATION

NOVEMBER 2019 – Version 1



GENERAL

> Purpose

This guide provides advice on installing and maintaining IBS Builders Grade and Hardcore Formply (IBS Formply).

> Important Documents

This guide must be read in conjunction with the:

- IBS Builders Grade Formply pass™ and IBS Hardcore Formply pass™
- IBS Formply Warranty.

> Skills Required

IBS Formply is for use by a competent construction worker or, for smaller projects, a competent DIYer.

> Scope & Limitations

For physical characteristics, scope and limitations refer to IBS Builders Grade Formply pass™ and IBS Hardcore Formply pass™.



> For More Help

Technical assistance is available at info@ibs.co.nz.

While all reasonable efforts have been made to ensure the accuracy of information provided, this document is a guide only. It may be subject to change.

> For Our Warranty

Refer to www.ibs.co.nz.

FORMPLY

> Description

IBS Formply is a structural formwork panel that provides a strong, rigid, temporary mould for in-situ concrete that is easy to handle, erect and strip. Its surface is designed to provide a clean, smooth surface finish to in-situ concrete structures.

IBS Formply is suitable for use with proprietary shutters and formwork systems or installed in accordance with specific engineering.

Formwork must be designed to:

- minimize deflection (limited to the lesser of span/270 or 3 mm)
- hold joints tightly together
- create a cohesive structure for handling and stripping
- enable the easy removal of fixings that hold the formwork together
- enable easy dismantling and reduce risk of damage to the formwork,
- meet the requirements as per AS 3610:1995 Formwork for Concrete, or as per a specifically engineered design.

Before installing IBS Formply, ensure that all design requirements have been considered and met. In most cases, IBS expects that the specific design details for the formwork will have been carried out by a registered Structural Engineer.



INSTALLATION

PRE-INSTALLATION

> Health & Safety

Take all necessary steps to ensure your safety and the safety of others:

- ensure adequate ventilation or mechanical dust extraction when cutting or drilling
- ensure the sheets are well supported when cutting
- wear appropriate safety equipment, clothing and footwear
- use all tools in accordance with relevant instruction manuals
- clear the work area of any obstructions before work starts.
- ensure there is adequate walkway space at the top of the formwork
- take all precautions when working at height
- no obstructions or unnecessary overhangs and fall protection.

For further information refer to:

- WorkSafe Small Construction Sites, The Absolutely Essential Health and Safety Toolkit, 07/2018.
- WorkSafe Health and Safety at Work, Quick Reference Guide, 12/2016.

These documents are available at

www.worksafe.govt.nz

> Handling & Storage

Take care when transporting, handling, and storing IBS Formply to prevent damage to the sheets. Face veneers, panel edges and panel corners are vulnerable to damage and should always be protected. When storing or handling take care to avoid sharp objects and place on a flat clean surface to avoid scratching, chipping and damage to edges.

IBS Formply is manufactured at low moisture content. Short exposure to damp conditions will not affect its dimensions, but with continued wetting, warping will occur. If panels are wet, allow them to dry slowly. Do not place in direct sunlight for extended periods.

Store panels flat, under cover and always in a well-ventilated area. Vertical storage is not recommended. If stacked ensure support is placed in at least three areas under the bottom panel. Framed panels should be stacked alternately face-to-face and back-to-back to avoid face damage from bolts etc. Where prone to on-site damage, add edge and corner protection using a stiff folded cardboard or light folded metal angle.

> Tools Required

- tape measure, edge, and chalk line.
- general hand tool
- hard tip hand saw
- skill saw
- electric or battery drills
- selection of speed drill bits
- electric planer
- laser level.

INSTALLATION

INSTALLATION

> Formwork

To construct the formwork:

- Lay the long edge of the panel (face grain) across the frame structure.
- Fix the panel to form the structure using 60 mm HDG nails (annular grooved if possible). IBS recommend 50 mm x 2.8 mm diameter self-drilling, self-tapping wood screws for easy dismantling.
- If using screws, pre-drill screw holes using a high-quality counter-sunk speed bit.
- Countersink the fasteners and fill for optimum performance.
- Where using nails, never drive the nails fully home on the formwork. Leave the nail heads proud for easy dismantling.
- Secure panels at 150 mm centres on the edges and 300 mm centres on the cross members.
- To avoid staining from fasteners use hot-dipped galvanized, stainless or alloy fasteners.
- Allow 1 – 2 mm expansion gap between panels when fastening.
- Use gap-filling compound and/or tape over expansion gaps to produce the best finish.

> Release agent

Always use a release agent.

Prior to every concrete pour:

- Ensure the release agent used is applied sparingly. Heavy application may cause runs and discolouration in the concrete.
- IBS recommend a light coating of a chemically reactive release agent. Chemically reactive release agents react with the lime in the fresh concrete and create a waterproof layer between the concrete and the panel. This ensures serviceability of the Formply is not reduced.
- IBS do not recommend the use of barrier type release agents (including petroleum-based products).
- When selecting the release agent, consider the type of surface finish quality required.

Note: Continuous pours are recommended to minimize 'cold joints'.

MAINTENANCE

INSTRUCTIONS



> Tools required:

- random orbit sander
- fast dry 2-part wood filler
- putty knife or small trowel
- sanding block.

Formply can be reused 5 – 8 times each side, provided it is used, handled, stored and maintained as instructed.

Cleaning should be carried out immediately after each use.

Clean with a soft absorbent material and cold water. If necessary, dislodge hardened surface concrete. Use a stiff brush or fine edge hardwood or PVC scraper. Do not use a wire brush or sharp metal scraper to dislodge hardened surface concrete on the plywood film surface.

Inspect the Formply regularly for damage. Where the face finish is critical, check for delamination and unacceptable face damage prior to use.

The Formply faces and edges are sealed with a protective coating during the manufacturing process. Should the protective coating become damaged, ripped or dislodged, the serviceable life of the panel will be reduced, and the struck face of the concrete could become flawed and unsightly.

Repair the protective coating by sealing, patching or filling with a 2-part, water repellent timber filler. Sanded flat and apply an application of protective sealer.



HOME OF SUSTAINABLE BUILDING PRODUCTS

Sustainability covers all facets of business from sourcing, to manufacture and handling of waste with a focus on long term sustainable products for the industry.

IBS selects products from suppliers that are committed, in the long term, to sourcing and manufacturing their products sustainably. We also look for suppliers and manufacturers that have a commitment to fair employment practices.

In NZ, IBS looks to minimise waste, recycle and maximise the use of recyclable packaging.

We offer a range of panel products for use in many different end uses.

Structural Plywood

Decorative Ply

PRIMAaqua

PRIMAalpha Groove

Rigid Rap

Hardboard

Softboard

Formply

Uncertified Plywood

OSB

Wet Wall Linings

PRIMAflex

CUT Panels

Marine Ply

Panel Brace Line



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