



**Step 1.**  
Ensure floor is clean & dust free



**Step 2.**  
Prime timber using Nicobond Universal Bonding Agent & Sealer, (diluted 4 parts water to 1 part UBAS) & allow to dry



**Step 3.**  
Starting in the furthest corner, remove release paper from Nicobond Plastic Ply and fix to floor ensuring smooth and flat.



**Step 4.**  
For edges & around existing features cut the Plastic Ply using scissors



**Step 5.**  
Lay the Plastic Ply sheeting directly to the floor in a brick type pattern, this ensures the maximum strengthening properties of the Nicobond Plastic Ply



**Step 6.**  
Cover the Plastic Ply with Nicobond Rapidflex adhesive. Firstly ensure the voids are filled using the straight edge of the Nicobond notched trowel, apply a subsequent thin 3mm layer of Nicobond Rapidflex, lightly Combing the surface to receive tiling.



**Step 7.**  
Fix tiles using the appropriate spacers ensuring full contact to the adhesive bed.



**Step 8.**  
Once floor has cured, grout using Nicobond Rapidflex Grout.

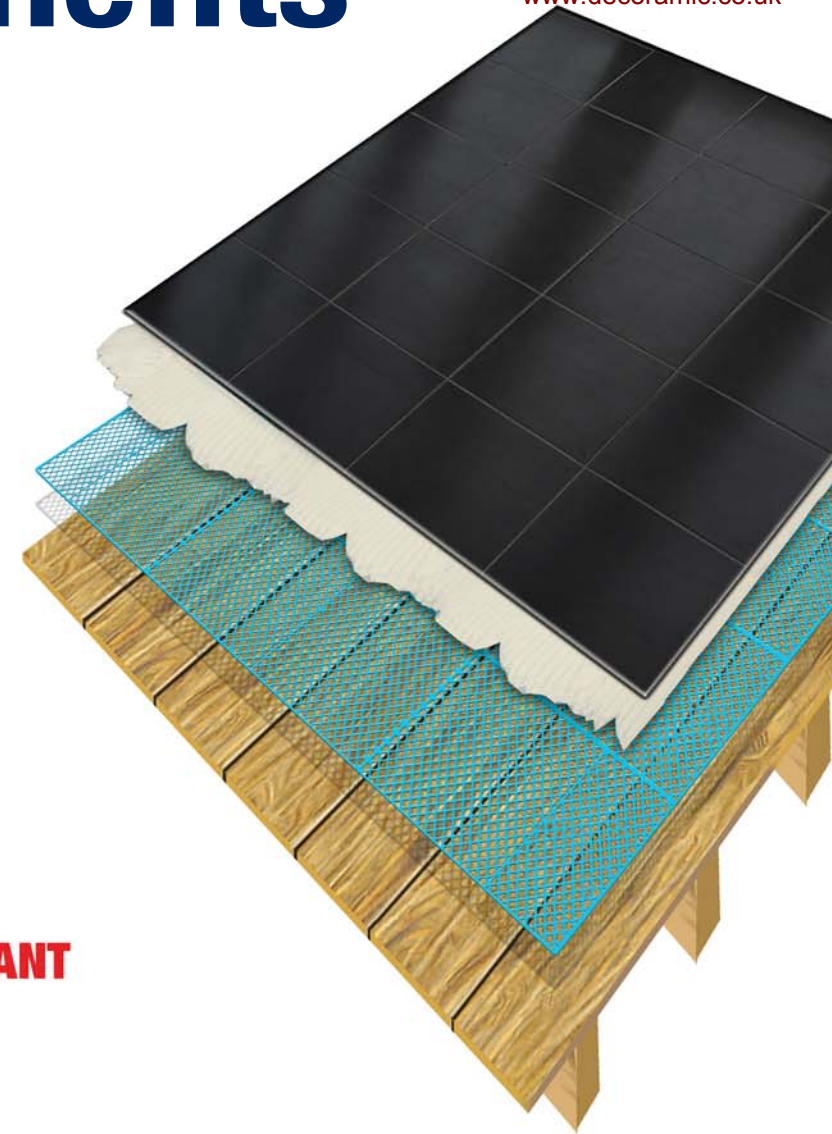


**Step 9.**  
Wipe any excess grout away using a damp cloth, allow grout to set and then start enjoying your new floor.

# Features & Benefits



-  **SELF ADHESIVE**
-  **ULTRA THIN**
-  **EASY TO CUT**
-  **EASY TO INSTALL**
-  **TIME SAVING**
-  **READY TO TILE**
-  **COST EFFECTIVE**
-  **MOISTURE RESISTANT**
-  **NO DRILLING**
-  **REDUCES STRESS ON TILED FLOORS**



January 2009

## Products for the Professional

## Product Data Sheet

# Plastic Ply

**Description**

A Blue polyethylene based self adhesive timber floor reinforcing sheet material, manufactured using 50% recycled plastic ingredients.

Approved under T915 by the Building Element Assessment Laboratory of New Zealand - Building Code Compliant. There are no equivalent British Standards for this category of products.

**Uses**

To facilitate the secure bonding of ceramic and porcelain tiles, mosaics and natural stones to timber floors and problematical substrates\* See Scope and Limitations. Plastic Ply is a strong durable sheet material which effectively counteracts deflective forces in a timber floor. In tests conducted under the BEAL Appraisal it was demonstrated that the Plastic Ply could withstand deflective forces far in excess of the L/360 criteria as recommended by the Tile Council of America ([www.tileusa.com](http://www.tileusa.com)).

**Features**

Strong durable material

Self Adhesive

Ready to Tile

Ultra Thin

Easy to cut

Moisture Resistant

Time Saving

Practical sheet size for convenient handling

**Application Method**

The timber floor should be dimensionally stable, sound and free from grease, waxes, dust and any contamination which may prevent adhesion.

Prime timber using Nicobond Universal Bonding Agent & Sealer diluted 4 parts by volume water to 1 part UBAS. Allow to dry.

Remove release paper from the underside of the sheet and lay the self adhesive backing directly on to the timber floor. Smooth out so that the sheet is completely flat. If the Plastic Ply is being affixed on an external balcony or terrace then the Plastic Ply can also be screwed down through the screw holes provided.

The Plastic Ply is very easy to cut using a Stanley/Utility Knife or strong scissors.

The Plastic ply shall be laid brick/stretcher bond pattern, this ensures maximum strengthening properties of the Plastic Ply.

Using the straight edge of a notched trowel cover the Plastic Ply with a layer of Nicobond Rapidflex Adhesive (C2 S1 category adhesive) ensuring the voids in the sheet are completely filled. A 3mm layer of adhesive is then applied to the Plastic Ply surface in which to bed the tiles. In a wet room environment the Nicobond Wet Room Tanking Sheet would be laid onto the wet layer of adhesive covering the Plastic Ply and tiles then installed on the tanking Sheet.

Once the floor tiles have set in accordance with the recommended timescales the tile joints may be grouted using Nicobond Rapidflex Grout or Nicobond Flexible Grout (CG2 category grout).

**Application Data**

<b>Sheet Size :</b>	600 x 500mm
<b>Thickness :</b>	2mm
<b>Packaging :</b>	Supplied in packs of 4 sheets per pack (1.2m <sup>2</sup> ). Outers of 12 packs per box (14.4m <sup>2</sup> ).
<b>Shelf Life</b>	Up to 1 year unopened



## General Information

Specific Performance within the NZ Building Code.

### Clause B1 – Structure

The Nicobond Plastic Ply system when used in accordance with this Appraisal will meet performance requirements of B1.3.2 of the New Zealand Building Code.

### Clause B2 – Durability

The Nicobond Plastic Ply System when used in accordance with this Appraisal will meet Performance B2.3.1(c) and B2.3.2 of the New Zealand Building Code.

### Clause E3 – Internal Moisture

The Nicobond Plastic Ply System when used in accordance with this Appraisal will meet Performance E3.3.3 of the New Zealand Building Code.

### Clause F2 – Hazardous Building Materials

The product contains no hazardous materials complying with clause F2.3.1 of the Building Code.

## Scope and Limitations.

The Nicobond Plastic Ply System has been appraised as an internal reinforcement sheet system to be used with timber floors complying with NZS3604 with tiles or natural stone and all accessories complying with the requirement of Clause E3.3.3.

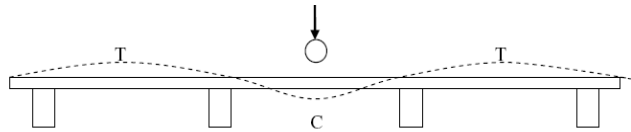
The timber floor shall have joist spacing of no greater than 600mm centres as described in NZS3604.

\* Consult N & C Nicobond regarding applications on other substrates.

## Key Testing Procedures

**Objective:** To assess the ability of the Nicobond Plastic Ply when installed over nominated timber substrates T & G Floor boards/Chipboard/Plywood to deflect 1.6mm (L/360) when performing as a complete system, preventing the fracture of the finish tiled floor .

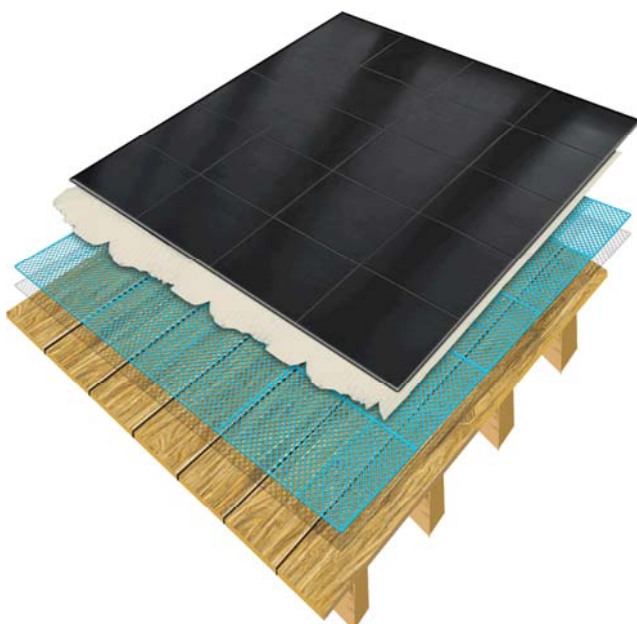
**Test Method:** A point load was exerted onto the test floor at a rate of 1mm/min to achieve the L/360 deflection, where L equals the span length. Floors have been designed with joists spaced at 600mm centres, therefore the the maximum deflection in the floors should be no more than 1.6mm. All floors should not exceed the deflection criteria of L/360, as recommended by The Tile Council of North America



**Criteria:** All floors should be able to resist a deflection of 1.6mm (L/360) with no visible signs of failure. i.e. tiles cracking.

**Result :** No failure occurred when the floors were deflected at 1.6mm. The floors were then subjected to maximum deflection of up to 10mm at which point the tiles cracked down the centre under the point load at up to 6.7mm deflection. In a test bed constructed in such a way that the grout line was at the centre the floor achieved a maximum deflection of 10mm, with the observation that there was hairline cracking in the grout.

**Comment:** The results showed that when the floors are subjected to a downward pressure to form a 1.6mm deflection, the Plastic Ply system prevents the fracture of the finished tiled floor over all nominated timber floor substrates constructed with timber joists at 600mm centres, and in conjunction with Nicobond Rapidflex Adhesive. On average the floors required a deflection of more than 3 times the required deflection before failure occurred; generally through the cracking of tiles.



Particleboard floor under deflection, notice the 'S' bend occurring within the floor, with the central span bending in compression with the outer spans uplifting in tension.

# Plastic Ply

## Timber Floor reinforcing sheet

A revolutionary solution to fixing tiles and Natural Stone to timber floors. Prevents problems of damage to tiles by reducing the effects of timber shrinkage, warping and rotting. Eliminates the need to install thick sheets of Marine Grade plywood (min 15mm) or similar over-boarding products.



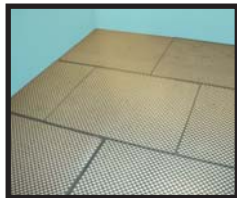
1. Ensure floor is clean and dust free.



2. Prime timber and allow to dry



3. Remove release paper



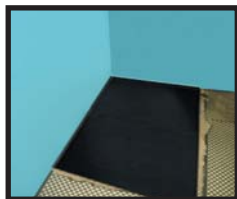
4. Fix 'brick-bond' to floor.



5. Cut using scissors



6. Cover Plastic Ply with Nicobond Rapidflex adhesive



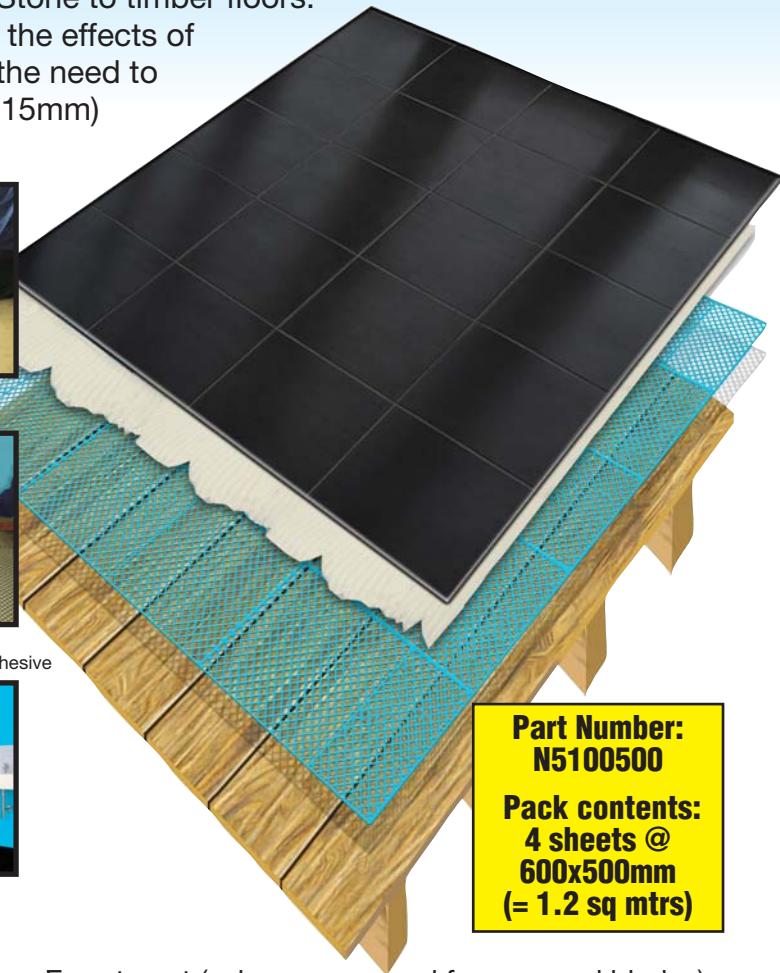
7. Fix tiles



8. Grout using Nicobond Rapidflex grout



9. Finished room



**Part Number:**  
N5100500

**Pack contents:**  
4 sheets @  
600x500mm  
(= 1.2 sq mtrs)

### Benefits:

- Self-adhesive
- Manufactured using 50% recycled plastic ingredients
- Ultra thin (no more steps/reducing door heights)
- Reduces stress on tiled floor
- Moisture proof
- Easy to handle
- Heat resistant (suitable for undertile heating)
- Easy to cut (scissors, no need for exposed blades)
- Easy to install (requires no skilled labour)
- Impact resistant
- Cost effective
- No drilling
- Ready to tile immediately (no curing/drying time)
- Speedy installation/time saving

## “The easy way to tile over timber floors”

### Recommended adhesives/grouts;

Nicobond Rapidflex Grey or White

Nicobond Rapidflex Grout (Grey or Charcoal)

The Nicobond Rapidflex adhesive should be trowelled into the surface of the Plastic Ply ensuring the mesh is filled; the surface should then be lightly combed prior to fixing tiles. Once fully cured, grout the tiled floor using Nicobond Rapidflex Grout.

### IMPORTANT NOTES:

Existing wooden floors must be rigid, stable and capable of supporting additional load without flexing and have sufficient ventilation beneath them. Any loose boards should be secured prior to applying N&C Nicobond Plastic Ply. If there is excessive flexing or movement within the floor the addition of extra noggins may be required.