

5433 PLYWOOD FLOORS

1 GENERAL

This section relates to the use of plywood sheets for floors.

Related work

1.1 RELATED SECTIONS

Refer to the following:

- 3821 TIMBER FRAMING for timber framing.
- 5431 PARTICLEBOARD FLOORS for alternative solutions.
- 5438H JAMES HARDIE FIBRE CEMENT INTERIOR FLOORING for wet area flooring
- 6512J JACOBSEN CARPET TILES for carpet tiles over.
- 6612J JACOBSEN ENTRANCE MATTING SYSTEM for matting over.

Documents

1.2 DOCUMENTS

Documents referred to in this section are:

- [AS/NZS 1604.3](#) Specification for preservative treatment - Plywood
- [AS/NZS 2269.0](#) Plywood - structural - specifications
- [NZS 3604](#) Timber-framed buildings

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.3 MANUFACTURER'S DOCUMENTS

The Contractor shall inform themselves of manufacturers documents and specifications and ensure such documents are current and kept up to date.

Requirements

1.4 QUALIFICATIONS

Workers / Installers to be experienced, competent trades people familiar with the materials and techniques specified.

2 PRODUCTS

Materials

2.1 PLYWOOD

Radiata pine veneer ply to [AS/NZS 2269.0](#), face sanded, grade as scheduled.
H3 CCA treated to [AS/NZS 1604.3](#) when used as a wet area substrate. Confirm compatibility with adhesives being used with the waterproofing membrane. F11 grade to be used for flooring.

Components

2.2 NAILS

Refer to the plywood manufacturer's requirements for size and use.

- 15mm ply: 50mm x 2.8mm galvanized annular grooved flooring nails
- 17 - 21mm ply: 60mm x 2.8mm galvanized annular grooved flooring nails
- 25mm ply: 75mm x 3.15mm galvanized annular grooved flooring nails

Jolt head nails to be used for exposed (clear finished) plywood.

2.3 SCREWS

Counter-sunk screws, stainless steel for treated plywood, minimum Class 3 or stainless steel for untreated plywood. Refer to the plywood manufacturer's requirements for size and use.

- 15mm ply: No. 8 x 40mm
- 17mm ply: No. 10 x 40mm
- 19 - 21mm ply: No. 10 x 45mm
- 25mm ply: No. 10 x 50mm

2.4 ADHESIVE

Polyurethane adhesive to American Plywood Association specification AFG 01.

3 EXECUTION

Conditions

3.1 DELIVERY, STORAGE AND HANDLING

Take delivery of materials and goods and store on-site and protect from damage to manufacturer's requirements.

Protect finished surfaces, edges and corners from damage.

Move/handle goods in accordance with manufacturer's requirements.

Reject and replace goods that are damaged or will not provide the required finish.

3.2 SUBSTRATE

Do not commence work until the framing is plumb and level, in true alignment and to suit the floor manufacturer's requirements.

Ensure framing suits the required laying pattern.

3.3 FLOOR DIAPHRAGMS

Install floor diaphragms in accordance with [NZS 3604](#), 7.3 Structural floor diaphragms and floor manufacturer's requirements.

3.4 EXPANSION JOINTS - LARGER FLOORS

Lay flooring to allow for a large expansion gap for large floor areas to manufacturer's requirements. Locate as shown, under internal walls where possible.

Application

3.5 SUPPORT AND JOINTS - SQUARE EDGE SHEETS

Fully support edges and joints on square edged sheets.

3.6 SUPPORT AND JOINTS - T&G EDGE SHEETS

Fully support edges and joints on square edges of sheets. T&G edges of sheets are not fully supported unless shown otherwise.

3.7 SUPPORT AND JOINTS - DIAPHRAGMS

Fully support all edges and joints on all sheets, to [NZS 3604](#), fig 7.9 **Floor Diaphragms**.

3.8 FIXING PLYWOOD SHEETS

Fix sheets to the plywood manufacturers requirements and [NZS 3604](#), section 7.2.3, **Wood-based Sheet Flooring**. Lay sheets in a staggered layout, face-grain of sheet at right-angles to support and with sheets in square, true alignment and plane.

3.9 ADHESIVE FIXING

Apply a 10mm adhesive bead to joists.

3.10 FIXINGS

Minimum 10mm, maximum 15mm from the edge, 150mm centres along edges and 300mm centres on intermediate supports.

Completion

3.11 PROTECT FROM WEATHER

Protect work from the weather until it is covered, coated or sealed. Do not allow water to pond on the floor surface. If exposed clean surface of flooring daily to remove sawdust, shavings and other items that may hold water, stain or damage the surface.

3.12 ROUTINE CLEANING

Carry out routine trade cleaning of this part of the work including periodic removal all debris, unused and temporary materials and elements from the site.

3.13 DEFECTIVE OR DAMAGED WORK

Repair damaged or marked elements. Replace damaged or marked elements where repair is not possible or will not be acceptable. Leave work to the standard required for following procedures.

3.14 PROTECTION

Provide the following temporary protection of the finished work:
From weather and damage for floor coverings over.

4 SELECTIONS

4.1 PLYWOOD - SQUARE EDGE SHEET FLOORING

Location: Internal Spaces (Alternative to Particleboard flooring)
Manufacturer: Contractor to provide an approved selection.
Brand/grade: BD or CD
Stress grade: F11
Thickness: 21mm min
Treatment: H3.2 CCA treated
Fixing: Nail and adhesive / screw and adhesive

4.2 PLYWOOD - T&G EDGE SHEET FLOORING

Location: Internal Spaces (Alternative to Particleboard flooring)
Manufacturer: Contractor to provide an approved selection
Brand/grade: BD or CD
Stress grade: F11
Thickness: 21mm min
Treatment: H3.2 CAA treated
Fixing: Nail and Adhesive / screw and adhesive

4.3 NAILS

Type/size/material: 60mm x 2.8mm for 21mm ply or 75mm x 3.15mm for over 21mm ply. 316 stainless steel for treated plywood.

4.4 SCREWS

Type/size/material: No. 10 x 45mm counter sunk screws for 21mm ply. No. 10 x 50mm counter sunk screws for over 21mm ply. 316 stainless for treated plywood (Class 3 minimum).

4.5 ADHESIVE

Type: As recommended by plywood manufacturer

4.6 CONSTRUCTION METHOD

Method: Platform method

4.7 DIAPHRAGM CONSTRUCTION METHOD

Method: 1200mm wide sheets with all edges supported, nail or nail plus adhesive fixed, sheet edge to perimeter of building with all wall plates on top of sheet.