

FORMANCE Structural Insulated Panels - Specifications

PREPARED BY:

PROJECT:

LOCATION:

DATE:

MBS FORMANCE PANEL SYSTEM

System

All Structural Insulated Panels (SIP) are to be "Formance panels" by Method Building Systems (MBS). Construction, installation & handling is to be in strict accordance with MBS instructions and the latest version of Formance Design Guide. All external wall panels are to be _____mm thick, with solid lumber to openings, corners, head, sill, to support any applied point loading and any SED requirements. The balance may be constructed with insulated splines. All internal wall panels are to be _____mm thick, with solid lumber to openings, corners, head, sill, to support any applied point loading and any SED requirements. The balance may be constructed with insulated splines. All cap plates on Formance wall panels, are to be _____mm thick _____ timber, or as specified in Framing Plan in Architectural Drawings. All Roof panels are to be _____mm thick with timber/insulated splines as per roof framing plan in architectural drawings. With solid lumber to all boundaries of roof. Specified timber for timber splines is _____mm thick and grade of timber_____.

Fasteners

All fasteners are to be hot dip galvanised corrosion resistant fit for purpose, exposure and location. Type 304 or type 316 stainless steel are approved alternatives. Fixings of facing panel to internal timber components are to be 2.8mm dia 60mm angular groove FH nails installed at 150mm crs. for all Formance Panels. Fixings between Formance SIP panels are to be 4.6mm FastenMaster HeadLOK installed at 300mm crs. Embedment into supporting timber is to be 40mm min. Formance Load spreading washers are to be used where the fastener is greater than 50mm from supporting timber within panels, trimers and lintels. Fixings of battens, under-battens and purlins directly fastened to once face of the OSB SIP are to be as per Formance Design Guide Table 21,22.

Bracing

Bracing panels shall be located as shown on the Bracing Design Plan. Panels require solid timber splines at each end of bracing unit. Hold Down into the foundation depends on specified Formance Hold Down detail in Bracing Design.

FBW-A

All Formance bracing panels require fixings of facing panel to internal timber components with 2.8mm dia 60mm angular groove FH nails installed at 150mm crs. and in corner nailing pattern as per standard Formance Detail (50/50/50/75/75/150..) Fixing of the bottom plate to the concrete floor shall be as per NZS3604 for a braced panel, with 7kN holding down bolt required max. 50mm from end of panel and 15kN holding down bolt required max. 200mm from end of panel in addition to boundary spline anchorage described above.

Type FBW-B; Formance Hold Down detail, require 600x25x1mm galvanized steel strap, fixed using 50x2.80mm flat head Galv Fibre cement nails, strap centered to stud, taken under the bottom plate and up 150mm each side of the stud. 3 nails each side to bottom plate & 6 nails to stud - both sides, in addition to requirements of FBW-A above.

Type FBW-C; Formance Hold Down detail, 2/200x25x1mm Galvanised Steel Straps on ONE side of panel, fixed using 50x2.80mm flat head Galv Fibre cement nails, 1st strap right at edge, second beside. 6 nails to underside of bottom plate prior to installation. 3 nails to bottom plate & 6 nails to stud - both straps, in addition to requirements of FBW-A above.

Type FBW-D; Formance Hold Down detail, 2/400x25x1mm Galvanised Steel Strap on ONE side of panel using 50x2.80mm flat head Galv Fibre cement nails, 1st strap right at edge, second beside. 3 nails bottom plate & 6 nails into stud - each end, in addition to requirements of FBW-A above.

Panel Layout Drawings (PLDs)

Detailed panel layout drawings are to be prepared by MBS identifying types of panels, timber reinforcement, openings, etc. Architect's and/or Engineer's review and approval is advised prior to commencement of fabrication.

Timber

Related Documents

All work and materials shall comply with the latest issue, of the following Codes and Standards:

Metric Dimensions for Timber	NZS 3601
Timber and Wood Based Products for Use in Building	NZS 3602
Timber Framed Buildings	NZS 3604
Timber Piles and Poles for Use in Buildings	NZS 3605
Mechanical Stress Grading of Timber	NZS 3618
New Zealand Timber Grading Rules	NZS 3631
Chemical Preservation of Round and Sawn Timber	NZS 3640

Materials

All timber used is to be in accordance with the 50 years durability performance of NZS 3602 and shall be treated in accordance with NZBC B2. All sawn timber beams are to be pine species graded SG8, unless noted otherwise. Sizes referred to in all documents are call dimensions to NZS 3601. All solid timber in the building is to be treated H1.2, bottom and sill plate are to be treated H3.2, unless noted otherwise. For allowable moisture content refer Table 4. NZS 3602. All elements required to comply with NZS3604 and installed in accordance with good trade practice.

Unless noted otherwise all proprietary connectors used on this project are to be manufactured from G300 Hot Dipped Galvanised steel and all nails & bolts are to be hot dip galvanised.

All timber members are assumed to be full length between end supports. No joints are allowed.

Workmanship

All work shall comply with NZS 3604 unless specifically noted otherwise.

All timber adjacent to concrete or concrete blockwork is to be fixed over D.P.C. All timber is to be fixed with bolts, nails, or other fixing as specified or as shown on the drawings and in accordance with good trade practice. No notching, housing or birdsmouthing is permitted except where detailed.

General Construction

All framing timber used with the Formance SIP systems is to be SG8 treated H1.2.

Bottom plate is to be 45mm SG8 conforming to NZS 3614 and treated to H3.2

Sill plate is to be 18mm CD grade structural plywood conforming to NZS 3614 and treated to H3.2

Trimmers are to be full height of the wall, fixed top and bottom in accordance with NZS3604

Lintel, doubling stud & connections shall be in accordance with NZS3604.

Formance Lintels are to be installed exactly to standard Formance Lintel Details.

General construction requirements shall be in accordance with NZS3604 unless otherwise specifically noted.

All double solid timber elements are to be fastened together 2/2.8dia 90mm nails at 300 crs.

Cap and Sill plates are to be full width of the panel. Bottom plates shall be fixed to the concrete floor in accordance with NZS3604. Continuity of top plates is to be provided in accordance with NZS3604.

Moisture content of timber to be maintained below 18% at all times during construction.

Timber found to be in excess at any point, needs to be removed from site.