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General and product information

PURPOSE

This guide is for the design of the Masons Barricade weather defense system.

IMPORTANT DOCUMENTS

This guide must be read in conjunction with:

- › the Masons Barricade weather defense system pass™
- › the Masons Barricade weather defense system Specification guide
- › the Masons Barricade weather defense system Installation guide
- › the Masons Barricade weather defense system warranty.

SKILLS REQUIRED

This guide is suitable for use by a competent designer. Where applicable, the person specifying the Masons Barricade weather defense system must be able to meet all RBW provisions.

FOR MORE HELP

Technical assistance is available at www.mpb.co.nz.

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

FOR OUR WARRANTY

Refer to www.mpb.co.nz.

PRODUCT DESCRIPTION

Masons Barricade weather defense system is a rigid air barrier system comprising Masons Barricade weather defense fibre cement sheets, covered in a Masons Barricade WD self-adhesive wrap, installed with timber framing.

Masons Barricade weather defense fibre cement sheets are autoclaved, asbestos free, 6 mm and 9 mm fibre cement board. The sheets are installed as a non-combustible rigid wall underlay in sheet sizes 1200 mm wide and up to 3000 mm in length.

Masons Barricade WD self-adhesive wrap is a heavy-duty, trilaminate non-woven polypropylene wrap coated with polyacrylic pressure-sensitive self-adhesive and backing release film. It is supplied in 50 m² rolls (1.46 m x 31.14 m).

The system is designed to provide UV and weather protection and has fire rating and bracing performance attributes when installed in accordance with Masons' installation requirements.

SCOPE AND LIMITATIONS

For scope of use, limitations, conditions and statement of building code compliance, refer to the Masons Barricade weather defense system pass™



Design

The steps required to design and specify the system are described in this guide.

Links to Masons Barricade weather defense system details that are to be included on the relevant plan sheet are provided. It is intended that the details are placed on the relevant plan sheet for easy reference on-site.

STEP 1

CONFIRM SCOPE AND USE

Confirm the proposed use is within the scope and limitations of the pass™.

The Masons Barricade weather defense system provides and can be specified to achieve a 30/30/30 fire resistance rating. Identify the location to relevant boundary's and building height to establish whether fire resistance rating is required for the proposed use.

The Masons Barricade weather defense system has wall bracing capacity. Confirm the required bracing capacity for wind and earthquake.

STEP 2

CONFIRM RELATED BUILDING WORK

For new and existing buildings confirm that the primary structure:

- complies with the NZ Building Code and is designed in accordance with
- NZS 3604:2011, or
- is specifically designed to NZS 3603:1993 or AS/NZS 1170:2002, or
- where existing, is suitable for the intended building work.

Confirm the floor structure. The Masons Barricade weather defense system is suitable for use with a timber or concrete floor structure.

STEP 3

SPECIFY WALL FRAMING

The Masons Barricade weather defense system must be designed with timber framing.

Wall framing is to be minimum 90 x 45 mm SG8, treated to H1.2.

Framing centres must be at 400 mm or 600 mm maximum centres. For a fire-rated assembly, 600 mm maximum centres are required.

Nogs must be at 800 mm maximum centres.

STEP 4

SPECIFY FIXINGS

Fixings must be 40 mm x 10 g CSK SS clout fixings at 150 mm centres, 12 mm minimum edge distance. Fixing set-out 50 mm-75 mm and 150 mm there after from the corner.



STEP 5 DETERMINE BRACING REQUIREMENTS

The Masons Barricade weather defense system provides the following bracing units for 6 mm sheets:

Panel width	Framing centres	Brace value wind	BU/m wind	Brace value EQ	BU/m EQ	Hold down method
400 mm	400 mm	32	81	37	94	GIB Handibrac to frame and bottom plate. Use Bowmac M12 screw bolts for concrete and M12 coach screws or equivalent for timber.
600 mm	600 mm	53	89	53	88	
1200 mm	600 mm	171	142	124	104	

- › BU/m values are based on 2400 mm sheet height. For greater heights refer to paragraph 8.3.1.3 of NZS3604: 2011 for adjusted values
- › For timber and concrete floors limits of 120 BU/m and 150BU/m apply respectively.
- › Framing centres at maximum 600 mm centres. Where using a 400 mm brace reduce centres to 400 mm centres.
- › The bracing values can also be applied for 9 mm thick sheets.

STEP 6 SPECIFY COMPONENTS TO ACHIEVE A FIRE RESISTANCE RATING, IF REQUIRED

Specify components required for the fire-rated assembly:

- › 13 mm GIB Fyrelite®
- › R2.2 Pink® Batts® glass fibre insulation
- › Hilti CP 606 Firestop acrylic sealant.

STEP 7 DETAIL THE SYSTEM

Detail the system in accordance with Masons Barricade weather defense system details and to match selections in steps 3 to 6.

STEP 8 QUALITY CHECK

Confirm all relevant design requirements are met.

Collate the following documents and include in the building consent application:

- › the Masons Barricade weather defense system pass™
- › the Masons Barricade weather defense system Specification guide
- › the Masons Barricade weather defense system Installation guide
- › the Masons Barricade weather defense system warranty
- › this document.