



**Benx Building Boards
Installation Manual
Cement based boards
Rigid Sheet Sheathing**

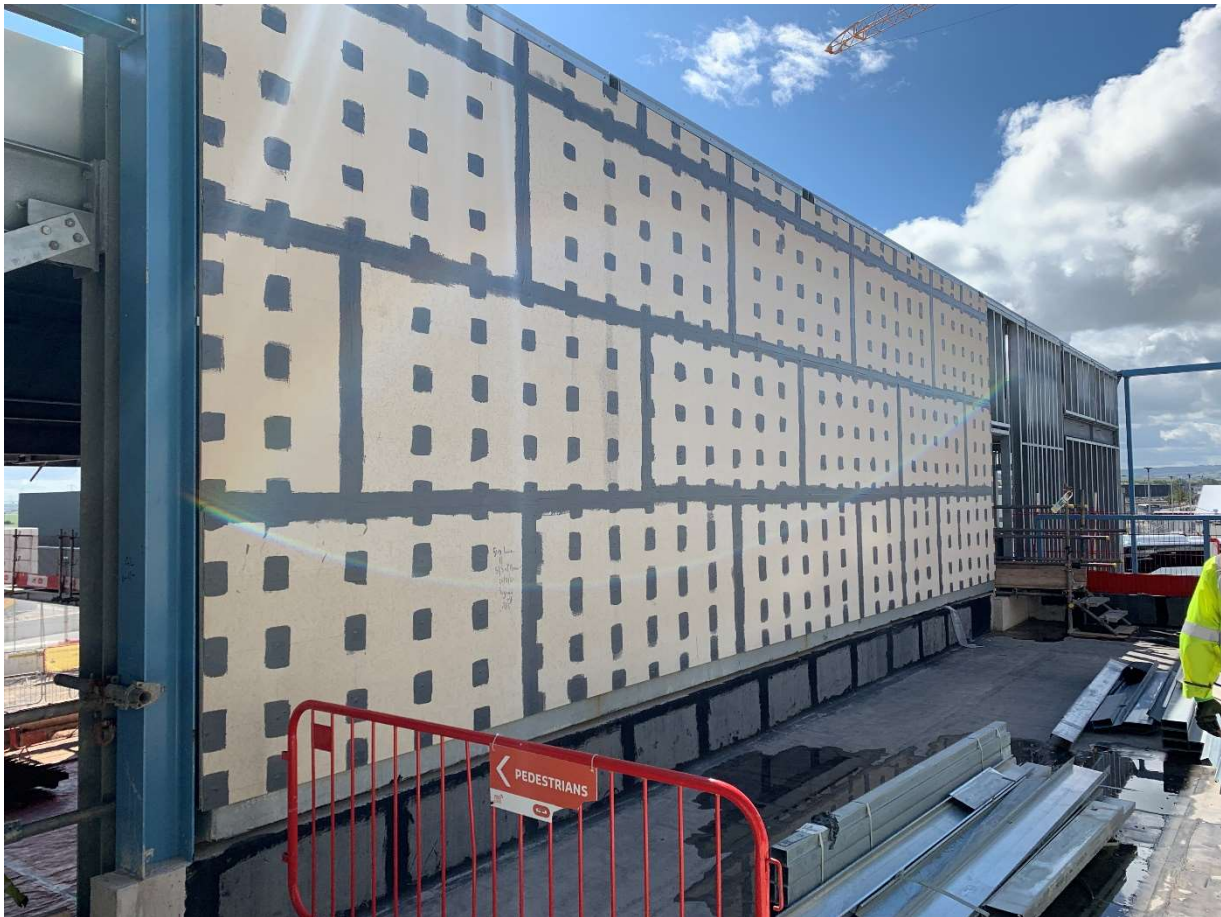


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Typical board wall

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Supporting Links [Technical Downloads](#)
[NBS Plus – SPS Envirowall](#)
[NBS Plus – RCM](#)

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Project Specification Revision Record (for use on project specific specifications)

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1	17/08/2023	First Issue	DS	MT	DS

Quality Assurance Note:-

The following method statement, installation guidelines should be read in conjunction with Benx Quality Assurance documentation.

Benx ISO CERTIFICATION

- ISO 14001 - ENVIRONMENTAL REGISTERED COMPANY CERTIFICATE No. SP240368
- ISO 9001 - REGISTERED COMPANY CERTIFICATE No. SP240367
- ISO 45001 - HEALTH & SAFETY CERTIFICATE
- ISO 50001 - ENERGY MANAGEMENT

PRODUCT DESCRIPTION

RCM Y-Wall is a high-quality calcium silicate-based fibre cement board for use externally as a structural and non-structural sheathing board behind facade/rainscreen cladding applied to lightweight steel and timber frames, and also as an internal lining in domestic and non-domestic buildings.

RCM Y-Wall can be cut, drilled and nailed using conventional hand tools, offering many of the properties of timber.

Fire classification to EN 13501-1 class A1

RCM Cemboard is a rigid, medium density high performance cement bonded particle building board, that can be used primarily as an external sheathing board. It provides excellent acoustic properties making it an excellent acoustic building board. Used extensively on both, metal, and timber frame structures, is also a great choice for modular and off/site buildings.

Fire classification B-s1, d0 to BS EN 13501-1

RCM Multipurpose is a cellulose fibre cement board for use internally as wall liner or tile backer boards on non-loadbearing and loadbearing walls, or externally as structural and non-structural sheathing boards behind façade rainscreen cladding applied to steel - and timber-frame substrate walls, in new and existing buildings subject to height restrictions.

Fire classification to EN 13501-1 class A1

RCM Renderflex is a cellulose fibre cement render carrier board for use internally as a wall liner and tile backer board on non-loadbearing and loadbearing timber- and steel-frame substrate walls in new and existing domestic and non-domestic buildings, subject to height restrictions.

Fire classification to EN 13501-1 class A2-s1 d0

RCM Siltech is a non-combustible flexible calcium silicate building board which provides superior workability due to a unique fibre reinforced formulation. Siltech can be used in an extensive range of applications from fire rated partitions, non-combustible ceiling tiles, boiler encasing, door lining, timber frame fire rated floors/ceilings as well as an extensive range of OEM applications. Siltech has been tested for 60 and 120-minute fire rated partitions.

Fire classification to EN 13501-1 class A1

RCM Betopan is a cement bonded particle board that can be used in interior and exterior areas for multi-purposes, consisting of a mixture of cement and wood, with B Fire Class. It has many areas of use from floor to roof in the buildings.

Fire classification B-s1, d0 to BS EN 13501-1

DIMENSIONS

RCM Y-Wall

Thickness: 6,9,12,15 mm

Standard Board Sizes: 2400x1200mm

RCM Cemboard

Thickness: 8,10,12,16,18,20mm

Standard Board Sizes: 2400x1200mm

RCM Multipurpose

Thickness: 6,9,12,18 mm

Standard Board Sizes: 2400x1200mm, 2700x1200mm, 3000x1200mm

RCM Renderflex

Thickness: 6,9,12 mm

Standard Board Sizes: 2400x1200mm

RCM Siltech

Thickness: 6,9,12,15 mm

Standard Board Sizes: 2400x1200mm

RCM Betopan

Thickness: 8,10,12,14,16,18mm

Standard Board Sizes: 2500x1250mm, 2800x1250mm, 3000x1250mm

ACCESSORIES

Screws

Timber Framed Structures: RCM FIX005 SCREW Ø4.2x42mm and BENX approved equivalent.

Steel Framed Structures: RCM FIX006 WINGTIP SCREW Ø4.8x38mm and BENX approved equivalent.

Accessories

Sealing RCM Products:

- FR PRO Low modulus silicone sealant fire rating 240 minutes, compatible for all boards.
- Nullfire(Intusil before) Low modulus silicone sealant fire rating 240 minutes, compatible for all boards except Densglass,

Taping RCM Products: Applicable for all joint parameters minimum tape width 60mm and max.150mm

- Dafa UV acrylic selfadhesive tape 60 and 100mm width 25m rolls compatible with all boards except Densglass.
- RCM 315 acrylic selfadhesive tape 60, 100, and 150mm width 25m rolls compatible with all boards.
- RCM Joint seal liquid 100mm width roller applied for longer exposure

EPDM + Adhesive (Sealing between the sheathing board and other material's interface)

- Applicable for windows, doors, and openings in general surrounding all sides of the opening interface with boards.
- Use on deflection head joints, between boards
- Use on slabs and columns interface with boards
- Use on movement and expansion joints

RCM Products:

- RCM 220 EPDM Membrane 100 to 300mm widths in 50mm increments 25m rolls
- Dafa EPDM rubber sheathing
- RCM 015 compatible adhesive for both above
- Dafa Expanding sealant tape Optional for bigger joints and as backer rod

APPLICATIONS

RCM Y-Wall

- Fire rated sheathing board.
- Ceilings.
- Partition Walling.
- OEM applications for improved strength and density.
- Recommended for buildings above 18m.

RCM Cemboard

- Sheathing board.
- Acoustic Flooring.
- High impact partitioning.
- Acoustic Roofing.
- Shuttering.
- OEM applications.

RCM Multipurpose

- Internal and external walling.
- Flooring and ceilings.
- Fascia and soffit liner.
- OEM applications for improved strength and density.
- Recommended for buildings above 18m.
- Tiler backer board.
- External sheathing.

RCM Renderflex

- Render carrier board.
- For use with polymer renders.
- Internal and external applications.
- Fascia and soffit liner.

RCM Siltech

- Partition walling.
- Flooring and ceilings.
- Ceiling Tiles.
- Door panels.
- OEM applications for improved strength and density.

RCM Betopan*Exterior:*

- External wall*
- Roof (Under roofing)
- Outdoor ceiling*
- Soffit and fascia*
- Fences, Boundary walls.

Interior:

- Wall cladding and partition walls.
- Shaft walls.
- Fire walls.
- Mezzanine floor.
- Floor, raised floor.
- Indoor ceiling.
- Wet surfaces (Under ceramic) **

*Only for prefabricated and light steel buildings.

**Only in applications performed on plates fixed to metal construction by mechanical assembly.

INSTALLATION GUIDELINES

Preparation: The installation team will check all materials to ensure they have been delivered in accordance with the specification information. Boards will be stored to keep them dry; mastic will be stored in site containers as recommended in the TDS documentation.

Environmental conditions: Ensure that the materials are installed in accordance with the product recommendation for temperatures (+5°C to +40°C), moisture and humidity.

Introduction: RCM boards can be cut with a power saw ensuring suitable dust control measures are taken, follow the Safety, Health, Environment and Quality documentation. Damaged boards must not be used. Framing grade timber studs or galvanized steel framework should be provided at a maximum 600mm centres for single layer partitions.

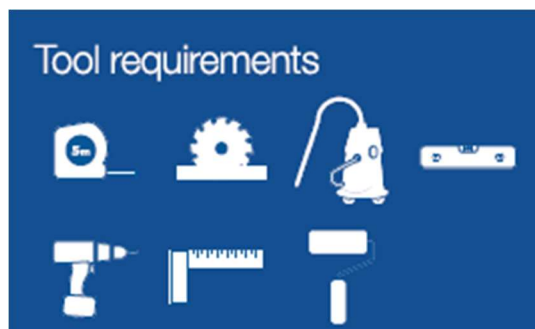
Board direction: RCM boards should be installed, smooth face (front face) outwards (external wall side), rough face (back face) inwards (facing into the framing cavity).

Fixings:

- Steel frame; Ø4.8x38mm FIX006 self-drilling drill point winged.
- Timber frame; Ø4.2x42mm FIX005 self-drilling.

Screws should be a minimum of 12mm from board edges and spaced at a maximum 300mm, the screws must not be overtightened, Typical board's fixing details drawing available.

Tools: Ensure you have the correct tools available as identified below. Tools will be checked to ensure they are in good working order and that any blades or cutting edges are sharp.



PPE: Review your task in accordance with the site Safety, Health, Environment and Quality documentation folder, task control sheets (if in use) and risk and COSSH assessments before proceeding.



Weather: Review the weather for the day the works are proposed and subsequent days as relevant to the product cure times.

HAV: (Hand arm vibration) You must have HAV assessments in place and follow the guidance. Hours to be recorded weekly.

Sequence: Review the application with the design documents and the site management to ensure the sequencing is in accordance with the project plan.

Joints: Gap of 2-5mm to be left between the boards, if required by fire strategy of the project use RCM sealant within the joints and around the perimeters of the boards. Try to avoid getting the fire seal mastic over the face of the boards.

INSTALL

Install sequence 1: Boards to be installed in a brick bond pattern in accordance with RCM recommendation. Line and level the first board and fix in accordance with the fixing drawing. Follow the same process with the next board leaving consistent joints as noted above (Joints).

Install sequence 2: Deflection joints will be maintained at floor levels, boards will be installed as per the engineering design drawings/details. All abutments, openings or penetrations will be neatly cut around and trimmed. EPDM Tape applied to deflection joints.

Install sequence 3: All board cutting is to be completed on a bench or trestles and cutting machines will have full dust suppression in operation at all times. Measure and mark the boards before cutting ensuring a straight edge is formed. If possible, L around the windows and openings. Ensure new board line works with window head and cill arrangements.

Install sequence 4: Boards to be secured with the required fixings as noted before (Fixings) in accordance with the fixing patterns provided in Benx Typical board's fixing details drawings.

Install sequence 5: Once the system is installed and the fixing arrangement has been inspected, all joints will be sealed following the STANDARD JOINTING paragraph from this document, Ensure tape is applied to all joints and around openings. Finish must be smooth and avoid creases where possible, joint seal liquid can then be applied.

Install sequence 6: Repeat the process around the elevation. Each area is to be inspected and recorded.

Inspection: Complete visual inspections to ensure the product is installed correctly.

STANDARD JOINTING

- JOINTS: RCM boards Joint seal is made up of two products; Dafa UV tape, which is a single-sided tape made from polyethylene and RCM Joint seal liquid, which is a temporary protective coating designed to protect non-porous surfaces from damage caused by abrasion, staining, spillage, weathering, and scratching. (fixing heads same sealing system). Add RCM sealant as first step if the wall is fire rated.
- OPENINGS: RCM cement boards openings joint seal is made up of two products; Expanding sealant tape and EPDM tape, installation instructions in the product related TDS.
- MOVEMENT JOINTS & DEFLECTION HEADS: RCM cement boards Movement joints and deflection head joint seal is made up of two products; Mastic sealant and EPDM Tape, installation instructions in the product related TDS.
- CONCRETE SLABS & COLUMNS: RCM cement boards joints interfacing with concrete slabs and columns is made up of EPDM Tape, installation instructions in the product related TDS.

Note: The information above is provided as an overview of the product sealing, can be subject to variations in relationship to the project specification, and the time of exposure of the boards.

Standard details of the typical joints, and a list of the available different product options available.

STORING & HANDLING

RCM building board panels are stacked on timber pallets. Each pack contains a label incorporating the manufacturer's name, product name, thickness, width, length, batch number, number of boards per pallet, pallet weight, recommended storage, and handling method. The boards must be stored in a ventilated and dry environment on a flat, level surface protected from contamination. To avoid excessive flexing of the boards, long edges must be supported when lifting and handling. The Certificate holder's instructions on site handling and storage must be followed.

GENERAL INFORMATION

- Service If you have any questions, our dedicated employees are ready to assist you with advice and guidance. Please visit our website to ensure that this document is the newest version.
- Guarantee conditions can be commissioned at your local Benx, RCM representative.
- Disclaimer The information contained in this publication and otherwise supplied to users of Benx, RCM products, is based on our general experience, best knowledge, and belief. However, project specific factors that fall beyond our knowledge and control, can affect the use of the products.
Benx, RCM policy is one of continuous improvement. Benx, RCM therefore reserves the right to alter specifications at any time and without notice. Board's characteristics may vary according to light and weather conditions.
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