benx group of companies
sps | envirowall TOTAL FAÇADE SOLUTIONS
RCM BUILDING BOARDS & FACADES
Unit 26 Rosevale Rd.
Parkhouse Ind. Est. West
Newcastle-Under-Lyme
ST5 7EF Staffordshire
Tel: 0845 130 0983
email: technical services@benx.co.uk

NBS SPECIFICATION FOR RAINSCREEN CLADDING SYSTEM THROUGH WALL COLOURED FIBRE CEMENT

Project:

Specification Number:

Date:

RCM, Unit 25-26 Rosevale Rd. Parkhouse Ind. Est. West

Newcastle-under-Lyme, Staffordshire ST5 7EF

Tel: 08006124662

Email: technical@rcmltd.biz

H92 RAINSCREEN CLADDING

To be read with preliminaries/General conditions

This section covers the Benx through wall system coloured fibre cement for external walls with inclusion of:

- Sheathing Boards and fixing to SFS frames
- Airtight solutions
- Rainscreen Insulation
- Cavity Barriers
- Support frame
- Façade coloured fibre cement range

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Drawing References:

- TWS06.TDSPS.0.00 Typical Details, Key Drawing
- TWS06.TDSPS.0.01 Typical Details, Vertical Joint
- TWS06.TDSPS.0.02 Typical Details, Horizontal Joint
- TWS06.TDSPS.0.03 Typical Details, Internal Corner Cantilever
- TWS06.TDSPS.0.04 Typical Details, Internal Corner Fixed
- TWS06.TDSPS.0.05 Typical Details, External Corner Cantilever
- TWS06.TDSPS.0.06 Typical Details, External Corner Fixed
- TWS06.TDSPS.0.07 Typical Details, Jamb Detail
- TWS06.TDSPS.0.08 Typical Details, Window Cill Detail
- TWS06.TDSPS.0.09 Typical Details, Window Head Detail
- TWS06.TDSPS.0.10 Typical Details, Base Detail
- TWS06.TDSPS.0.11 Typical Details, Coping Detail
- TWS06.TDSPS.0.12 Typical Details, Soffit Detail
- TWS06.TDSPS.0.13 Typical Details, Movement Joint Vertical
- TWS06.TDSPS.0.14 Typical Details, Movement Joint Horizontal

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Primary Support Structure:

Primary steel frame/Secondary steelwork SFS steel frame/Existing structure and structural elements/ All to be advised by full structural survey (Not undertaken by Benx).

Manufacturers:

- Sheathing Boards: Y-Wall, Cemboard, Multipurpose, DensGlass
- Airtight Solutions: Proctor, Dafa, Illbrook
- Support Frame: Allface
- Cavity Barriers: AIM
- Rainscreen Insulation: Rockwool, Knauf Insulation, Kingspan
- Façade coloured fibre cement - Swisspearl range

Rainscreen Cladding System :

Benx Through Wall System 06 Coloured Fibre Cement / Type: Ventilated

Rainscreen panel Type: FLAT Swisspearl Largo

- Material: Fibre-reinforced cement panels
- Thickness: 8mm or 12mm
- Finish/Colour: Pure acrylate or 2 component polyurethane coating water resisting
- Fixing system: Riveted
- Fasteners: Aluminium rivets colour matching with panel, see secondary support system below
- Number and location of fasteners: Max. fixing distances, hole diameter and installation method with the use of fixed and moving points, see BBA 15/5257
- Joint type: Open
- Air gap: No less than 25mm. (CWCT & NHBC 50mm)
- Accessories: Matching windows and door reveals as per related drawings,
- Pressed Aluminium cill flashings, cappings, etc… All to be advised in separate document (Not undertaken by Benx).

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Secondary Support System:

ALLFACE extruded 'T' and 'L' aluminium rails range with adjustable helping hand wall brackets F1/F1+ to existing structure at centres determined in conjunction with project engineer and relevant wind load calculations in accordance with BS 6399 part II

- Material: Aluminium EN-AW 6060 T66
- Rails: 'L' 60x40x2mm Mill finished A-L04006020
- Rails: 'T' 100x60x2mm Mill finished A-T10006020
- 'T' 120x60x2mm Mill finished A-T12006020
- 'T' 120x40x2mm Mill finished A-T12004020
- Wall Brackets F1 Mill finished with 3 slots in face 1x11mm & 2x6.5mm 65x90mm and throat depth range: 35mm,50mm,80mm,100mm,115mm,135mm,150mm,170mm,185mm,220mm,255mm,300mm
- Wall Brackets F1+ Mill finished with 5 slots in face 2x11mm & 3x6.5mm 65x175mm and throat depth range: 35mm,50mm,80mm,100mm,115mm,135mm,150mm,170mm,185mm,220mm,255mm,300mm
- Fasteners Bracket to rail: A2 austenitic stainless steel EJOT J4 4.8x19mm 2 per bracket F1 and 4 per bracket F1+
- Fasteners Bracket/Isolator pad fixing through sheathing board into SFS: A2 austenitic stainless steel with carbon steel drill point EJOT JT 3-3 6.3x50mm 1 per bracket F1 and 2 per bracket F1+
- Fasteners Rail to Panel: Aluminium rivets SFS Intec FP-A-9.4x6mm matching colour
- Swisspearl K15 4x18mm for 8mm board colour matching
- Swisspearl K15 4x24mm for 12mm board colour matching
- Number and location of fasteners: As determined by ALLFACE design and installation calculations and RCM-Swisspearl design and installation manual.
- Accessories: ALLFACE UV-stabilised high density polyethylene I.F1.CNM 71.2x97x5mm
- I.F1+.CNM 71.2x182x5mm
- RCM Y-Wall Isolators Calcium silicate based fibre cement board 72x97x6mm
- 72x182x6mm

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Sheathing Boards

This section can be composed with different types of boards fulfilling all of them the requirements of Benx through wall system.

RCM/Y-WALL (Walls, Ceilings)

- Material: Calcium silicate based fibre cement building board.
- Thickness: 9, 12, 15mm (1200 x 2400mm boards)
- Finish/Colour: RCM Y-wall has one smooth face and one textured face, the smooth face should be fixed outermost, Colour light grey/light pink.
- Fixing system: Self drilling wingtip fixings
- Fasteners: RCM countersunk wingtip self-drilling, zinc coated screws FIX006 4.8x38mm (Use stainless steel in marine environments)
- Number and location of fasteners: RCM Y-wall edge distance is 15mm except at the board corners where fixings should be moved up or down to achieve 50mm. Fixings should be fixed using a maximum 600mm x 300mm grid pattern. (See RCM/Y-Wall Fixing guide).
- Joint type: Open from 2 to 5mm

MULTIPURPOSE (Walls, Roofs, Floors, Soffit strips)

- Material: Cellulose fibre cement building board.
- Thickness: 9, 12mm (1200 x 2400mm boards)
- Finish/Colour: Multipurpose has one smooth face and one textured face, the smooth face should be fixed outermost, Colour light grey.
- Fixing system: Self drilling wingtip fixings
- Fasteners: RCM countersunk wingtip self-drilling, zinc coated screws FIX006 4.8x38mm (Use stainless steel in marine environments)
- Number and location of fasteners: RCM Multipurpose edge distance is 12mm except at the board corners where fixings should be moved up or down to achieve 50mm. Fixings should be fixed using a maximum 600mm x 300mm grid pattern. (See RCM/Multipurpose Fixing guide).
- Joint type: Open from 2 to 5mm

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CEMBOARD (Walls, Roofs, Floors)

- Material: Cement bonded particle building board
- Thickness: 10, 12, 16mm (1200 x 2400mm boards)
- Finish/Colour: Both faces of RCM Cemboard have a smooth surface, the board is stencilled on the reverse side, Colour grey.
- Fixing system: Self drilling wingtip fixings
- Fasteners: RCM countersunk wingtip self-drilling, zinc coated screws FIX006 4.8x38mm (Use stainless steel in marine environments)
- Number and location of fasteners: RCM Cemboard edge distance is 15mm except at the board corners where fixings should be moved up or down to achieve 50mm. Fixings should be fixed using a maximum 600mm x 300mm grid pattern. See RCM/Cemboard Fixing guide.
- Joint type: Open from 2 to 5mm

DENSGLASS (Walls, no membrane)

- Material: Fleece mat fibre gypsum board
- Thickness: 12.7mm (1200 x 2400mm boards)
- Finish/Colour: Densglass has one fleeced face and one matt face, the fleeced face should be fixed outermost, Colour gold/white.
- Fixing system: Self drilling wingtip fixings
- Fasteners: Countersunk zinc coated screw RCM FIX018 4.2mm x 32mm self-drilling fixing (Use stainless steel in marine environments)
- Number and location of fasteners: RCM Densglass edge distance is 15-15mm. Fixings should be fixed using a maximum 600mm x 300mm grid pattern. See RCM/Densglass Fixing guide.
- Joint type: Densglass boards to butt together.

ACCESSORIES

- DAFA UV Tape, to sheathing boards joints, single sided polyester base tape, 60 and 100 mm width
- RCM ME315 Tape, to sheathing boards joints, single sided polyester tape, 60mm width
- RCM FR Pro, sheathing board joint sealant, fire resistant silicone sealant
- Nullifire FS703, sheathing board joint sealant, fire resistant silicone sealant

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Breather Membranes/Tapes (Airtight Solutions)

This section can be composed with a combination of different types of membranes and tapes, fulfilling all of them the requirements of Benx through wall system.

EPDM

- ILLBROOK ME010 , Ethylene Propylene Diene Monomer rubber 50-1500mm width
- ILLBROOK ME241 , Ethylene Propylene Diene Monomer rubber, corner accessories
- ILLBROOK OT015 , High tac EPDM adhesive fixing membrane to sheathing board

BREATHER MEMBRANES

- ILLBROOK ME010 , Polyester based breather membrane 1500mm width
- PROCTOR Wraptite, Triple layer polypropylene micro porous film laminate, with a proprietary acrylic moisture vapour permeable adhesive and silicon coater PET release liner 1500mm width
- RCM RC015 , Paste adhesive made from a blend of synthetic rubber and resin, fixing membrane to sheathing board

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Cavity Barriers

Provision of cavity barriers are given for specified locations in conjunction with project engineer.

VERTICALS

- Material: Polythene sleeved rockwool and intumescent strip CSCB
- Manufacturer: AIM Fire Barrier Slab
- Thickness: 75, 100mm Cavity widths from 50mm to 600mm
- Finish/Colour: Foil facing, Colour Silver.
- Fixing system: Push fitted into place.
- Fasteners: Galvanised or stainless steel fixing clips and Coarse wound screws
- Number and location of fasteners: Clips may be omitted when the barrier is less than 250mm, 2 clips per 1mm length are required for cavities up to 400mm, and 3 clips per 1m length are required for cavities over 400mm
- Joint type: Fire barrier slabs to butt together.

HORIZONTALS

- Material: Polythene sleeved rockwool and intumescent strip, 25 & 44mm expansion
- Manufacturer: AIM Open State Cavity Barrier OSCB 60/25
- Thickness: 90mm Cavity widths from 50mm to 425mm
- Finish/Colour: Foil facing, Colour Silver.
- Fixing system: Push fitted into place. Butt end joints
- Fasteners: Galvanised or stainless steel, fixing clips, butts and Coarse wound screws
- Number and location of fasteners: Clips may be fitted at 500mm max. centres
- Joint type: Fire barrier slabs to butt together.

ACCESSORIES

- Foil tape joint of OSCB and CSCB with insulation, AIM foil tape

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Insulation

This section can be composed with different types of Insulation slabs all of them fulfilling the requirements of Benx through wall system, and the project specification.

Mineral Wool Insulation

- Material: Earthwool Rainscreen slab or Rockwool Rainscreen slab is a semi rigid, lightweight, non-combustible rock mineral wool slab containing a water repellent additive.
- Manufacturer: KNAUF Insulation or Rockwool
- Thickness: 50-210mm (600 x 1200mm slabs)
- Finish/Colour: Yellow
- Fixing system: Plastic and stainless steel washers with steel or stainless steel fasteners
- Fasteners: EJOT SBV Plastic washer, EJOT DMT 85/7 E Stainless steel washer, EJOT SW8R Casehardened carbon steel with 'Climadur' organic coat, EJOT JT3D6H5.5/6 Austenitic Stainless Steel fastener with carbon steel drilling point, fixing length to suit thickness of specified insulation.
- Number and location of fasteners: Stainless steel washer and fastener, 1 per board, see manufacturer fixing manual
- Joint type: Insulation slabs to butt together.

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GENERAL REQUIREMENTS/PREPARATORY WORK

210 DESIGN

- Rainscreen cladding system and associated features: Complete detailed design in accordance with this specification and the preliminary design drawings and submit before commencement of fabrications.
- Related works: Co-ordination detailed design.

215 DESIGN PROPOSALS

- Submission of alternative proposals: Preliminary design drawings indicate intent. Other reasonable proposals will be considered.

220 SPECIFICATION

- Compliance standards: The Centre for Window & Cladding Technology (CWCT) 'Standard for walls with ventilated rainscreens' and 'Standard for testing of ventilated rainscreens'.
- Reference information: For the duration of the contract, keep available at the design office, workshop and on site copies of:
- The Centre for Window & Cladding Technology (CWCT) 'Standard for walls with ventilated rainscreens'
- The Centre for Window & Cladding Technology (CWCT) 'Standard for testing of ventilated rainscreens'.
- Publications invoked by The Centre for Window & Cladding Technology (CWCT) 'Standard for walls with ventilated rainscreens' and 'Standard for testing of ventilated rainscreens'.

230 INFORMATION TO BE PROVIDED DURING DETAILED DESIGN

Submit the following cladding particulars:

- A schedule of detailed drawings and dates for submission for comment.
- A schedule of loads that will be transmitted from the rainscreen cladding to the structure.
- Proposed fixing details and systems relevant to the structural design and construction methods of adjustment and tolerance.
- A schedule of fabrication tolerances/ size tolerances.
- A detailed testing programme in compliance with the main contract master programme.
- A detailed fabrication and installation programme with the Main Contract master programme.
- A quality plan in compliance with The Centre for Window & Cladding Technology (CWCT) 'Guide to Good Practice for Facades', Section 6.
- Proposals to support outstanding applications for Building Regulations for consents or relaxations.

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235 INFORMATION TO BE PROVIDED BEFORE COMMENCEMENT OF TESTING OR MANUFACTURE OF RAINSCREEN CLADDING SYSTEM

Submit the following particulars:

- Detailed drawings to fully describe fabrication and installation.
- Detailed calculations to prove compliance with design/performance requirements.
- Project specific fabrication, handling and installation method statements.
- Certification for incorporated components manufactured by others confirming their suitability for proposed locations in the rainscreen cladding.
- Recommendations for spare parts for future repairs or replacements.
- Recommendations for the safe dismantling and recycling of disposal of products.

DESIGN /PERFORMANCE REQUIREMENTS

310 THE CENTRE FOR WINDOW & CLADDING TECHNOLOGY (CWCT) 'STANDARD FOR WALLS WITH VENTILATED RAINSCREENS'

- General: Comply with Section 2 – Performance Criteria unless specified or agreed otherwise.
- Project performance requirements specified in this subsection: Read in conjunction with CWCT performance criteria.

330 INTEGRITY OF VENTILATED RAINSCREEN CLAD WALLS

- Requirement: Determine sizes and thickness of panels, sizes, number and spacing of fixings, configuration and location of secondary support systems and incorporation of other accessories and fittings to ensure the cladding system, primary support structure and other elements forming the rainscreen wall will resist factored dead, imposed and design live loads, and accommodate deflections and movements without damage.
- Wind loads: Calculate to BS 6399-2, Standard Method appropriate to location, exposure, height, building shape, and size taking account of existing and known future adjacent structures.
- Basic wind speed (Vb): .
- Altitude factor (Sa):.
- Direction factor (Sd): .
- Seasonal factor (Ss): 1.
- Probability factor (Sp): 1.
- Terrain and building factor (Sb): .
- External and internal size effect factors (Ca): 1.
- External pressure coefficients (Cpe): As determined from BS 6399-2, clauses 2.4 and 2.5.
- Internal pressure coefficients (Cpi): As determined from BS 6399-2, clause 2.6.

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- Dominant opening:
- Impact loads to BS 8200:
- Location and category:
- Temporary imposed loads:

360 WIND RESISTANCE – CYCLICAL LOADING

Requirement: No reduction in the performance of the rainscreen cladding must occur after the maximum effective wind pressure has been applied for 10,000 cycles.

370 APPEARANCE AND FIT

Requirement: Design rainscreen wall:

- To ensure position and alignment of all parts and features as shown on preliminary design drawings.
- Adjustable wall bracket to accommodate deviations in the primary support structure.
- Maximum permitted component and installation tolerances: There should be a maximum setting out tolerance of +/-1 mm (non-cumulative) across the width of the panel. Because of the adjustment available within the system there should be 0 mm misalignment on the front face of the panel .

380 GENERAL MOVEMENT

Requirement: Rainscreen cladding must accommodate anticipated building movements as follows:

- Incorporation of movement joints where required. To be advised by Architect / Designer at design stage.

390 AIR PERMEABILITY: GENERALLY

Requirement: Average air leakage rate through the listed walls at a differential pressure of 50 Pascal's must not exceed: $10m^3/hr/m^2$.

410 AIR PERMEABILITY

Requirement: No regions of concentrated airflow through the air barrier, its closures or interfaces with windows, doors or other penetrations through the wall at a test pressure of 200 Pa.

420 WATER PENETRATION

Requirement: Moisture must not penetrate onto internal surfaces, or into cavities not designed to be wetted, when the rainscreen wall is subjected to a test pressure of 300 Pa.

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430 THERMAL PROPERTIES

- Method for calculating the thermal transmittance (u-value) of the rainscreen wall: Elemental area
- Average u-value of rainscreen wall overall wall construction 0.25 W/m² deg C / 0.3 W/m² deg C. To be calculated by the designer. Benx will offer assistance provided that specific information can be provided regarding existing building elements. Information and calculations will be provided for GUIDANCE PURPOSES ONLY.

440 AVOIDANCE OF CONDENSATION

- Requirement: Psychometric conditions under which condensation must not form within or on the interior surface of the rainscreen wall or any surface of the wall that is on the warm side of insulated are:
- Notional outdoor psychometric conditions as BS 6229, table A1

	Winter	Summer
Temperature	-5ºC	18ºC
Relative humidity	90%	65%
Vapour pressure	0.36kPa	1.34kPa
Duration	60 days	60 days

- Notional indoor psychometric conditions
  - Temperature 20ºC
  - Relative humidity 50%
  - Vapour pressure 1.17kPa
  - Winter interstitial condensate:
  - Calculated amount (maximum): 0.35kg/m².
  - Calculated annual retention: Nil

450 VAPOUR CONTROL LAYER

Interstitial condensation risk of rainscreen wall: Determine using the method described in BS 5250 Annex D. If necessary, provide a suitable vapour control layer to ensure that damage and nuisance from interstitial condensation does not occur.

470 SOUND TRANSMITTANCE BETWEEN ADJOINING ROOMS ABUTTING RAINSCREEN CLAD WALL

Must not permit flanking transmission, which would compromise the values shown on the partition layouts.

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480 FIRE RESISTANCE OF BACKING WALL TO BS 476-21

Minimum periods and criteria: 60 minutes integrity.

485 INTERNAL SURFACE SPREAD OF FLAME OF BACKING WALL TO BS 476-7

Class O

490 CAVITY BARRIERS TO BS 476-20

Requirement: To resist the passage of flame and smoke for not less than 30 minutes integrity, 15 minutes insulation.

TESTING

510 COMPARISON (TYPE) TESTING

Commencement of fabrication and installation of rainscreen cladding: Not until test results and reports showing compliance with this specification have been submitted.

530 TESTING AUTHORITY

Requirement: Project testing must be carried out by a United Kingdom Accreditation Service (UKAS) approve independent laboratory.

590 AIR PERMEABILITY TESTS

- Requirement: To CWCT 'Standard for testing of ventilated rainscreens', clauses 3.3, 3.3.2 and 3.3.3.
- Test pressure: As clause 410.
- Allowable leakage rates: As clause 390.
- In situ test: To BS 5638-1.

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PRODUCTS

710 ALUMINIUM ALLOY FRAMING SECTIONS

- Standards: To BS EN 755 alloy EN AW-6063 and suitable for the specified finish.
- Structural members: To comply with BS 8118.

711 ALUMINIUM ALLOY SHEET

Standards: To BS EN 485, BS EN 515 and BS EN 573 in an alloy, temper and thickness suitable for the application of the specified finish.

715 MILD STEEL FRAMING SECTIONS/REINFORMCEMENT

Standards: To the relevant parts of BS 7668, BS EN 10029, BS EN 10113, BS EN 10137, BS EN 10155 and BS EN 10210, in a thickness suitable for the application, and for galvanising or other protective coating.

716 MILD STEEL SHEET

Standards: To the relevant parts of BS 1449-1, BS EN 10048, BS EN 10051, BS EN 10111, BS EN 10131, BS EN 10132, BS EN 10139, BS EN 10140, BS EN 10149, BS EN 10209 and BS EN 10268 in a grade and thickness suitable for the application, and for galvanising or other protective coating.

730 MECHANICAL FIXINGS – MATERIAL REQUIREMENTS

- Stainless steel: To BS EN ISO 3506 grade A2 generally, grade A4 when used in severely corrosive environments.
- Mild steel: To BS 4190 and suitable for galvanising or other protective coating.
- Aluminium: To BS EN 755.

731 ADHESIVES

General: Not degradable by moisture or water vapour.

735 FIXINGS AND FASTENERS

- Dimensions: Not less than recommended by the manufacturers.
- Adjustment capability: Sufficient in three dimensions to accommodate primary support structure and rainscreen cladding fabrication/installation tolerances.

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760 GASKETS

- Material
- Noncellular rubber to BS 4255-1.
- Cellular rubber to ASTM-C509.
- Durability: Resistant to oxidation, ozone and UV degradation.

765 WEATHERSTRIPPING OF OPENING UNITS

- Material:
- Noncellular rubber to BS 4255-1.
- Cellular rubber to ASTM-C509.
- Polypropylene woven pile, silicone treated.
- Installation: Fixed in undercut grooves in framing sections using preformed corners with any joints in the length.

770 GENERAL SEALANTS

- Section: In accordance with BS 6213 from:
- Silicone to BS 5889.
- One part polysulfide to BS 5215.

775 THERMAL INSULATION

- Material: Rockwool (mineral-fibre) or similar.
- Manufacturer: Rockwool Limited or similar.
- Product Reference(s): Rockwool Rainscreen Duo-Slab or similar
- Thickness: Not less than 50mm. thickness to achieve 0.25 W/m² deg C / 0.3 W/m² deg C through total wall construction.
- Fixing: Attached to the outer face or supported within the backing wall so as not to sag, bulge or delaminate/detach during installation or in-situ during the life of the rainscreen cladding.

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785 BREATHER MEMBRANE

- Material: Spun bonded polypropylene / Micro perforated virgin polyethylene.
- Supplier: RCM
- Product reference: See '*Breather Membranes/Tapes (Airtight Solutions)*' paragraph in page 7
- Continuity: No breaks. Minimise joints.
- Penetrations and abutments: Attach to the breather membrane with tape. Achieve full bond.
- Laps: Not less than 150mm, bond with tape. Achieve full bond.
- Tape: As recommended by the breather membrane manufacturer.
- Repairs: Lapped patch or breather membrane material secured with continuous band of tape on edges.
- Junctions at flashings, sills, gutters etc. Overlap and allow free drainage to exterior.

FINISHES

810 PROTECTIVE COATING OF MILD STEEL FRAMING SECTIONS/REINFORCEMENT

- Treatment: All surfaces to one of the following:
- Hot dip galvanised to BS EN ISO 1461.
- An appropriate equivalent coating to BS 5493, BS EN ISO 12944 and BS EN ISO 14713.

820 PROTECTIVE COATING OF MILD STEEL MECHANICAL FIXINGS

- Treatment: All surfaces to one of the following:
- Hot dip galvanised to BS EN ISO 1461.
- Sherardized to BS 4921, class 1 coating thickness and passivated.
- Zinc plated to BS EN 12329, coating designation of FE//Zn//C for an iridescent (yellow/passivate) chromate conversion coating of FE//Zn//D for an opaque (olive green) chromate conversion coating.

850 POLYVINYLIDENE FLUORIDE (PVDF) COATING

- Standards: To BS 4842, AAMA 2604-02 or AAMA 2605-02, subject to minimum coating thickness recommended by the manufacturer on all significant surfaces.
- PVDF resin content of coatings: Not less than 70%.
- Preparation, priming, PVDF coating, test samples, protection and damage repair: In accordance with the manufacturers recommendations.
- Coating programme: Wherever possible, after fabrication is complete.
- Fabrication of prefinished lengths: Submit proposal beforehand.
- Uncoated edges: Not visible in assemblies.

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FABRICATION AND INSTALLATION

910 GENERALLY

- Electrolytic corrosion: Take necessary measures to prevent.
- Identification of products: Mark or tag to facilitate identification during assembly, handling, storage and installation. Do not mark surfaces visible in the complete installation.

911 METALWORK

Requirement: As section Z11, unless specified otherwise in this section.

922 FIXING/ADHESIVES APPLICATION

Requirement: As section Z20, unless specified otherwise in this section.

925 SEALANT APPLICATION

Requirement: As section Z20, unless specified otherwise in this section.

930 ASSEMBLY

- Location: Carry out as much assembly as possible in the workshop.
- Joints: Other than movement joints and designed open joints, must be rigidly secured, reinforced where necessary and fixed with hairline abutments.
- Displacement of components in assembled units: Submit proposals for reassembly on-site.

950 SUITABILITY OF SUPPORTING STRUCTURE

- Contractors survey:
- Scope: Survey of supporting structure to determine suitability.
- Structure unsuitable to receive cladding: Give notice.

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960 PRELIMINARY RAINSCREEN CLADDING INSTALLATION

Requirement: Complete an area of cladding for inspection and approval or appearance by the Principle Contractor.

970 RAINSCREEN CLADDING INSTALLATION

- Tightening mechanical fasteners: To manufacturer's recommended torque figures. Do not overtighten fasteners intended to permit differential movement.
- Protective coverings: Remove only where necessary to facilitate installation and from surfaces which will be inaccessible on completion.

975 WELDING

In-situ welding: Not permitted.

980 INTERFACES

Installation: Locate flashings; closures etc. correctly and neatly overlap cladding to form a weathertight junction.

985 DAMAGE

- Repairs: Do not repair cladding without approval.
- Approval: Will not be given where the proposed repair will impair performance or appearance.
- Records of repairs: Prepare schedule or record on drawings for inclusion in the maintenance manual.

995 MAINTENANCE

Maintenance manual: Incorporate details within the Building Manual in accordance with CWCT 'Guide to Good Practice for Facades', Section 10.

Unit 26 Roseva e Rd.
Par house Ind. Est. West
Newcast e-Under-Lyme
ST5 7EF Staffordsh're
Te : 0845 130 0983
ema : technica services@benx.co.u :

Note

On draft specifications for Through Wall Systems:

The purpose of these draft specifications is to assist the Project design team in producing the respective documentation for any project under consideration.

The draft specifications are provided in good faith for use at the discretion of the respective design consultants, to be amended and edited as required to suit the particular project requirements.

As manufacturers/suppliers Benx Technical is not privy to detailed contractual arrangements and documentation of individual projects and is therefore not in a position to co-ordinate related work by others. It is not he intention for this draft to relate to any particular project, but to provide a guide to the more common items to encountered in construction assemblies incorporating Benx, SPS, and RCM products.

Whilst it is the Planning supervisor/Quantity surveyors/Project designer's responsibility to produce their respective documents and we can assist them in their duties, we cannot accept responsibility for any errors or omissions which may occur in tender or contract documents or for compliance with the requirements of the CDM and Health & Safety regulations which may be applicable.

Finally please ensure that any amendments to Benx Technical draft specifications represent a true interpretation of the project designer's requirements.