

SPECIFICATION - Withington District Library – Rev B

- BUILDING CONTROL
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- TARMAC
- WATER HEATER BOXING
- EXTERNAL WALL PENETRATION SEAL

BUILDING REGULATIONS APPROVAL

The Contractor shall ascertain and comply with the current requirements of the Building Regulations, Constructional Standards 1997, Government Codes and Regulations, Fire Regulations, Safety Regulations CDM Regulations and any other statutory requirements relating to the work. The Contractor must prepare the necessary documentation, details, calculations, drawings etc. to ensure that all Building Regulations / Environmental Health Officer's approvals are obtained for the works. This documentation is to be handed to the client at the completion of all works and weekly site meeting.

Submit if requested, by the Building Control Officer / Environmental Health Officer an original signed copy of each test report upon components and/or materials.

Prepare and submit if required by the Building Control Officer / Environmental Health Officer, additional information / documentation. Report to the client all submissions / dates / revisions / approvals, relevant to the statutory approval.

The Contractor is entirely responsible for achieving or surpassing the performance and installation criteria of all components, assemblies and workmanship described in this specification. The Contractor is fully responsible for the design and for obtaining all necessary approvals in the design criteria of all components. The Contractor is accepting the same responsibility in respect of indemnities as any professional architect or designer of a building. The Contractor is responsible for ensuring the system achieves or surpasses the water tightness, air tightness and integrity specified and for the thermal and acoustic performance of the completed installation.

Ground water level (if any) on the site is not known. Make all necessary enquiries concerning ground water level and allow for variations from that level. Verify with which existing fences, gates, walls, roads, paved areas and other site features are to be removed. Materials arising are to be removed from site.

Excess excavations that are wider than required with material specified for backfilling and deeper than required with well graded granular material or lean mix concrete.

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Do not import or use fill materials which would, either in themselves or in combination with other material or ground water, give rise to a health hazard, damage to building structures or instability in the filling?
Soluble sulphate content of imported materials for filling must not exceed 1 g/litre when tested to BS 1377: Part 3, clause 5, using a 2:1 water-soil extract.
Keep excavations free from water until foundations and below ground constructions are completed.

A completion certificate is to be obtained by the main contractor to prove that all conditions have been satisfied, each stage of inspection has been notified to the building inspector who is satisfied that the work complies with the Building Regulations.

Inspection Regime

Agreement to undertake the following inspections, (subject to receiving confirmation), All site works require a site visit at the stage listed and the site is open and accessible for inspection.

Contact the designated Building Control Officer to discuss or amend the inspection regime.

Completion certificates

One of the most important documents issued by Building Control is the Completion Certificate. This is the final stage in the application procedure, completing the process.

Building Control Surveyors carry out on-site inspections at various stages of construction. On satisfactory completion of the works, a Completion Certificate is issued. This Certificate gives the date of the final inspection carried out and states that, as far as can be reasonably ascertained, the work carried out conforms to the Building Regulations.

As the final part of the process, a Completion Certificate is forwarded to the applicant and all interested parties following a satisfactory final inspection. Further copies may be issued on request which may be subject to a charge.

The importance of a Completion Certificate cannot be over-emphasised. It verifies that a property complies with legal guidelines and has been subject to Building Regulations inspections carried out by independent and impartial professionals. For this reason, it reassures all those with interests in the conveyancing process such as house owners, solicitors, banks, building societies and purchasers.

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Site Inspection	Works to be assessed	Period of notice required
Commencement	To enable the proposed works to be discussed	Same day when requested before
Excavation	To ensure foundations are excavated to a satisfactory depth	Same day when requested before
Concrete in foundations	To ensure that the concrete has been laid correctly	Same day when requested before
Damp-proof course	To ensure that the DPC has been laid correctly	Same day when requested before
Concrete oversite	To check the preparation for the oversite concrete	Same day when requested before
Drains	Drains laid and before covering	Same day when requested before
Drains inspection and test	Testing of drains for water tightness after covering	Same day when requested before
Occupation of building	Check prior to occupation	24 hours
Final completion	Final check	Within 5 days of completion
Before covering any structural timbers, steelwork or concrete	This is not a mandatory inspection but is recommended	Same day when requested before 10.00am, otherwise 24 hours
Before covering electrical installation (only required if electrics are not installed by a Competent Electrician)	To check correct installation of cables in walls, floors and ceilings	48 hours

MATERIAL/PRODUCT SUBSTITUTION.

Any proposal for use of an alternative material or product must also include proposals for substitution of compatible accessory products and variation of details as products and variation of details as necessary, with evidence of equivalent durability, function and appearance of the construction as a whole.

If such substitution is sanctioned, and before ordering products, the contractor must provide revised drawings, specification and manufacturer's guarantees as required.

Materials /products can only be ordered after issue of an AI, or client instruction. However, if the Contractor wishes to offer for consideration alternatives and options to the requirements of this specification then provide an accompanying letter fully detailing them and quote the price adjustment to the Tender sum.

The phrase "or equal and approved" means that the CA/client may approve the alternative, but is not obliged to approve it.

If an alternative product is proposed during the course of the project, sufficient time must be given to the CA/client to consider this alternative, without jeopardising the programme. A minimum of one month before materials need to be ordered, after appropriate documents have been submitted it is suggested.

Appropriate documents could include:

- Technical literature
- Performance specification
- Test results
- Specification
- Drawings
- Method statements
- COSHH sheets
- Life cycle costing
- Environmental impact statements.

SCAFFOLD

Clarify when a scaffold design is required and what level of training and competence those erecting, dismantling, altering, inspecting and supervising scaffolding operations are expected to have.

Scaffold design

It is a requirement of the Work at Height Regulations 2005 that unless a scaffold is assembled to a generally recognised standard configuration, e.g., NASC Technical Guidance TG20 for tube and fitting scaffolds or similar guidance from manufacturers of system scaffolds, the scaffold should be designed by bespoke calculation, by a competent person, to ensure it will have adequate strength, rigidity and stability while it is erected, used and dismantled.

At the start of the planning process, the user should supply relevant information to the scaffold contractor to ensure an accurate and proper design process is followed. Typically, this information should include:

Site location

Period of time the scaffold is required to be in place Intended use

Height and length and any critical dimensions which may affect the scaffold

Number of boarded lifts

Maximum working loads to be imposed and maximum number of people using the scaffold at any one time

Type of access onto the scaffold e.g., staircase, ladder bay, external ladders

Whether there is a requirement for sheeting, netting or brick guards

Any specific requirements or provisions e.g., pedestrian walkway, restriction on tie locations, inclusion/provision for mechanical handling plant e.g., hoist)

Nature of the ground conditions or supporting structure and Information on the structure/building the scaffold will be erected against together with any relevant dimensions and drawings

Any restrictions that may affect the erection, alteration or dismantling proc

Prior to installation, the scaffold contractor or scaffold designer can then provide relevant information about the scaffold. This should include:

Type of scaffold required (tube & fitting or system)

Maximum bay lengths

Maximum lift heights

Platform boarding arrangement (i.e., 5 + 2) and the number of boarded lifts that can be used at any one time

Safe working load / load class

Maximum leg loads

Maximum tie spacing both horizontal and vertical and tie duty

Details of additional elements such as beamed bridges, fans, loading bays etc, which may be a standard configuration (see note 1 ref tg20:13) or specifically designed

Information can be included in relevant drawings if appropriate

Any other information relevant to the design, installation or use of the scaffold

Reference number, date etc. To enable recording, referencing and checking

All scaffolding must be erected, dismantled and altered in a safe manner. This is achieved by following the guidance provided by the NASC in document SG4 'Preventing falls in scaffolding' for tube and fitting scaffolds or by following similar guidance provided by the manufacturers of system scaffolding.

For scaffolds that fall outside the scope of a generally recognised standard configuration the design must be such that safe erection and dismantling techniques can also be employed throughout the duration of the works. To ensure stability for more complex scaffolds, drawings should be produced and, where necessary, these may need to be supplemented with specific instructions.

Any proposed modification or alteration that takes a scaffold outside the scope of a generally recognised standard configuration should be designed by a competent person and proven by calculation.

Scaffold structures that normally require bespoke design

Includes:

All shoring scaffolds (dead, raking, flying)

Cantilevered scaffolds [1](#)

Truss-out scaffolds

Façade retention

Access scaffolds with more than the 2 working lifts [2](#)

Buttressed free-standing scaffolds

Temporary roofs and temporary buildings

Support scaffolds

Complex loading bays

Mobile and static towers

Free standing scaffolds

Temporary ramps and elevated roadways

Staircases and fire escapes (unless covered by manufacturer's instructions)

Spectator terraces and seating stands

Bridge scaffolds

Towers requiring guys or ground anchors
Offshore scaffolds
Pedestrian footbridges or walkways
Slung and suspended scaffolds
Protection fans
Pavement gantries
Marine scaffolds
Boiler scaffolds
Power line crossings
Lifting gantries and towers
Steeple scaffolds
Radial / splayed scaffolds on contoured facades
System scaffolds outside manufacturers guidance
Sign board supports
Sealing end structures (such as temporary screens)
Temporary storage on site
Masts, lighting towers and transmission towers
Advertising hoardings/banners
Rubbish chute

Any scaffold structure not mentioned above that falls outside the 'compliant scaffold' criteria in tg20 or similar guidance from manufacturers of system scaffolds.

The above list is not exhaustive and any scaffold that is not a standard configuration or does not comply with published manufacturers' guidelines will require a specific design produced by a competent person.

Note

1. TG20:13 provides compliant scaffolds for a limited range of cantilever scaffolds, loading bays, static towers, use of rakers, bridges and protection fans.
2. TG20:13 provides a range of compliant scaffolds, which can be boarded at any number of lifts, but only two platforms can be used as working platforms at any one time.

Competence and supervision of scaffolding operatives

All employees should be competent for the type of scaffolding work they are undertaking and should have received appropriate training relevant to the type and complexity of scaffolding they are working on.

Employers must provide appropriate levels of supervision taking into account the complexity of the work and the levels of training and competence of the scaffolders involved.

As a minimum requirement, every scaffold gang should contain a competent scaffolder who has received training for the type and complexity of the scaffold to be erected, altered or dismantled.

Trainee scaffolders should always work under the direct supervision of a trained and competent scaffolder.

Operatives are classed as 'trainees' until they have completed the approved training and assessment required to be deemed competent.

Erection, alteration and dismantling of all scaffolding structures (basic or complex) should be done under the direct supervision of a competent person. For complex structures this would usually be an 'Advanced Scaffolder' or an individual who has received training in a specific type of system scaffold for the complexity of the configuration involved. Scaffolding operatives should be up to date with the latest changes to safety guidance and good working practices within the scaffolding industry. Giving operatives job specific pre-start briefings and regular toolbox talks is a good way of keeping them informed.

Guidance on the relevant expertise of Scaffolders and Advanced scaffolders including details of which structures they are deemed competent to erect can be obtained from the [Construction Industry Scaffolders Record Scheme \(CISRS\) website](#) .

Scaffold inspection

It is the scaffold users / hirer's responsibility to ensure that all scaffolding has been inspected as follows:

Following installation / before first use

At an interval of no more than every 7 days thereafter

Following any circumstances liable to jeopardise the safety of the installation e.g., High winds.

All scaffolding inspection should be carried out by a competent person whose combination of knowledge, training and experience is appropriate for the type and complexity of the scaffold. Competence may have been assessed under the CISRS or an individual may have received training in inspecting a specific type of system scaffold from a manufacturer/supplier. A non-scaffolder who has attended a scaffold inspection course (e.g., a site manager) could be deemed competent to inspect a basic scaffold structure.

The scaffold inspection report should note any defects or matters that could give rise to a risk to health and safety and any corrective actions taken, even when those actions are taken promptly, as this assists with the identification of any recurring problem.

NEW TIMBER WINDOWS

GENERAL

Remove and dispose of existing window sashes and frames to W001-W034.

Supply and install new Sapele Hardwood sash frames and cills to W001-W034 to match the existing window frame and cill profile

Heritage double glazing is to include 4/8/4 arrangement with 4 mm K Glass Toughened Glass to the outer and inner panes with a 8mm Kryton Filled Cavity.

Supply and Install 1 Sash catch Brighton and 2 Sash lifts in polished brass to each sash opener

New sashes and frames are to be made to measure to fit into existing timber sash frames. All window sizes denoted on the tender drawings are approximate/for illustration purposes only. It is the contractor's responsibility to verify the exact measurements of each window sash prior to manufacture and co-ordinate with the existing frames.

All windows are to be fitted by a manufacturer's approved contractor and fitter.

Following new window and frame installation, Contractor is to decorate new sashes and window frames of windows W001-W034 with White Satin Ronseal 10 Year Weatherproof Paint or similar approved products.

PRODUCTS

Glass

Standards: To BS 952 and relevant parts of:

- BS EN 572 for basic soda lime silicate glass.
- BS EN 1096 for coated glass.
- BS EN 1748-1-1 for borosilicate glass.
- BS EN 1748-2-1 for ceramic glass.
- BS EN 1863 for heat strengthened soda lime silicate glass.
- BS EN 12150 for thermally toughened soda lime silicate safety glass.
- BS EN 12337 for chemically strengthened soda lime silicate glass.
- BS EN 13024 for thermally toughened borosilicate safety glass.
- BS EN ISO 12543 for laminated glass and laminated safety glass.

Panes/ sheets: Clean and free from obvious scratches, bubbles, cracks, rippling, dimples and other defects.

- Edges: Generally undamaged. Shells and chips not more than 2 mm deep and extending not more than 5 mm across the surface are acceptable if ground out.

Heat soaking of thermally toughened glass

Heat soaking regime: Glass specified as 'heat soaked' to BS EN 14179-1 must be subjected to a heat soaking regime designed to reduce the incidence of failure due to nickel sulphide inclusions.

- Heat soaking period (minimum): Submit proposals.
- Mean glass temperature: $290 \pm 10^{\circ}\text{C}$.

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Certified evidence of treatment: Submit.

Impact resistance

Glass: To BS 6206 or BS EN 12600.

Fire resistance

Test standards: To BS 476-22 or BS EN 1364-1.

EXECUTION

Workmanship

Glazing generally: To BS 6262.

Integrity: Glazing must be wind and watertight under all conditions with full allowance made for deflections and other movements.

Dimensional tolerances: Panes/ sheets to be within ± 2 mm of specified dimensions.

Materials:

- Compatibility: Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be used together to be compatible. Avoid contact between glazing panes/ units and alkaline materials such as cement and lime.

- Protection: Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

Preparation:

- Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.

Removal of glazing for reuse

Existing glass/ plastics and glazing compound, beads, etc: Remove carefully, avoiding damage to frame, to leave clean, smooth rebates free from obstructions and debris.

Deterioration of frame/ surround: Submit report on defects revealed by removal of glazing.

- Affected areas: Do not reglaze until instructed.

Reusable materials: Clean glass/ plastics, beads and other components that are to be reused.

Bead fixing

With pins:

- Pin spacing: Regular at maximum 150 mm centres, and within 50 mm of each corner.

- Exposed pin heads: Punched just below wood surface.

With screws:

- Screw spacing: Regular at maximum 225 mm centres, and within 75 mm of each corner.

Single glazing putty fronted

Glazing installation:

- Glass: Located centrally in surround using setting and location blocks, and secured with glazing sprigs/ cleats/ clips at 300 mm centres.

- Finished thickness of back bedding after inserting glazing (minimum): 1.5 mm.

- Front putty: Finished to a smooth, neat triangular profile stopping 2 mm short of sight line. Surface lightly brushed to seal putty to glass and left smooth with no brush marks.

Sealing putty: Seal as soon as sufficiently hard but not within 7 days of glazing. Within 28 days apply either the full final finish, suitably protected until completion and cleaned down and made good as necessary, or two coats of primer/ sealer applied locally to the compound, to be followed nearer completion with the full specified finish. Opening lights: Keep in closed position until putty has set sufficiently to prevent displacement of glazing when opened. Single glazing bead fixed with glazing compound

Glazing installation:

- Glass: Located centrally in surround using setting and location blocks and distance pieces.
- Finished thickness of back bedding after inserting glazing (minimum): 3 mm.
- Front bedding: Applied to fill voids.
- Beads: Bedded in glazing compound and fixed securely.
- Visible edge of glazing compound: Finished internally and externally with a smooth chamfer.

Single glazing bead fixed with tapes and capping sealant

Glazing installation:

- Glass: Located centrally in surround using setting and location blocks.
- Glazing tape: Top edge approximately 6 mm short of sight line on external side of glazing, to allow for capping sealant. Corners butt jointed with no gaps.
- Thickness of glazing tape bed (minimum): 3 mm on both sides of glazing after compression.
- Beads: Bedded in sealant, pressed firmly into position to compress tape, and fixed securely.
- Excess tape on internal side: Carefully trimmed to a smooth chamfer.
- Capping sealant: Applied to fill void between bead and glazing and finished to a smooth chamfer.

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Ventrolla

By Design

SASH WINDOW SPECIALISTS

New Windows

Over 40
years of British
Craftsmanship





Bespoke New Joinery

Traditional Joinery Hand Crafted By Ventrolla

Original timber sash and casement windows embody the charm and heritage of any period property, however, with rising heating bills many homeowners are looking for a solution that provides maximum energy efficiency whilst still maintains the authentic look and charm of a period timber window.

Ventrolla hand craft complete new timber windows using a slim double glazed unit and traditional joinery methods and expertise to match the profile of your existing windows, wherever possible.

The slim glazing unit used has a reduced sightline of the spacer bar between the two panes of glass, which enables Ventrolla to manufacture narrower glazing bars, thereby allowing us to closely replicate your original sashes. In addition, born from our dedication to using a range of traditional carpentry methods, all our new sashes incorporate 'through' or 'solid' glazing bars, not 'stick on' versions, again, to help create an authentic period look for your sash windows.

Bespoke new, energy efficient timber windows to suit you and your period home.



Slim Double Glazing

Making Your Home Energy Efficient

Our bespoke new windows offer energy saving measures that, in conjunction with our unique Ventrolla Perimeter Sealing System (VPSS) draught proofing system is installed as standard to all new sashes and new windows.

We install slim glazing units allowing us to manufacture your new sashes using traditional carpentry methods, including solid glazing bars (instead of glazing bars stuck on to the glass), which help to retain the window's authentic period look and feel. Another main feature of the slim glazing unit is the reduced sightline of the spacer bar between the two panes of glass, allowing us to manufacture narrower glazing bars and thereby closely replicating the existing windows.

Specification

- Slim 16mm (4/8/4) Double Glazed units
- Centre Pane U-Value of 1.3 Wm2K
- Total Window U-Value of 1.6 Wm2K
- Dual Edge Seal Technology
- Saint Gobain Planitherm Total+ Glass (outer pane)
- Argon, Xenon or Krypton filled cavity
- Choice of white or black spacer bar
- Conforms to the very latest British Standards requirements BS EN 1279, Parts 1-6

Timber

All new joinery, including new double glazed windows, are made using hardwood.

Installed As Standard

Our unique Ventrolla Perimeter Sealing System (VPSS) draught proofing system is installed as standard to all new sashes and new windows.

To assist with future maintenance and painting we install our unique Sash Removal System (SRS) which enables both the top and bottom sashes to be removed for redecoration and future maintenance from the inside of the property.

The Finish & Fittings

Replacement sashes and complete new windows are sprayed with high build base coat Teknos 3130 and anti-stain primer Teknos Antique White, ready for final finishing by others.

All Ventrolla windows can be supplied with hardware in a range of styles and finishes. Please ask for a copy of our hardware brochure.

Additional Services

In addition to new windows, we also manufacture and install new slim double glazed sashes into your existing sash box frame.

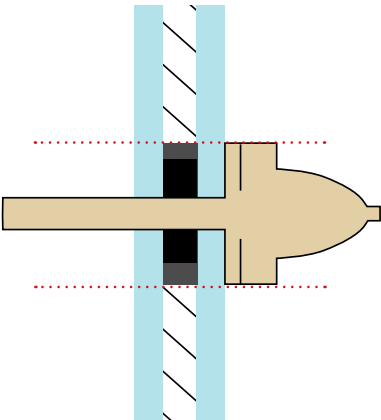
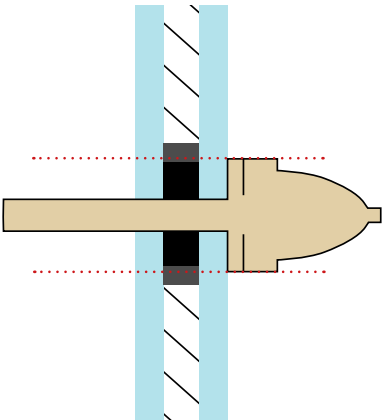
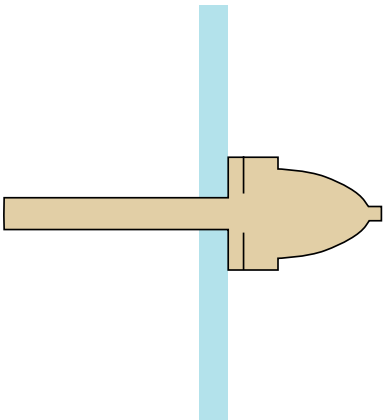
For properties where historic protection applies, single glazed windows can also be manufactured with a range of glazing options, please ask your Surveyor for details.



Single Glazed
(normal glazing bar)

Double Glazed
(normal glazing bar)

Double Glazed
(wider bespoke glazing bar)



Draught Proofing

Effective & Discrete Draught Proofing for your Home

As with all our Ventrolla products and services, our unique draught proofing system, the Ventrolla Perimeter Sealing Sysrem, is installed into your complete new windows as standard. Teamed with modern energy efficient glazing, our draught proofing system will help eliminate all problems usually associated with the mechanisms of sash windows, such as wind, dust and sometimes water leak into your home as well as losing heat.

This draught proofing system is a brush pile installed in and around your new sashes and new sash box, therefore sealing any gaps whilst still allowing the sashes to move past each other smoothly so as not to hinder their operation.

All new windows come with the Ventrolla Perimeter Sealing System (VPSS) fitted as standard.



Our Unique Sash Removal System

Making Future Maintenance Stress Free

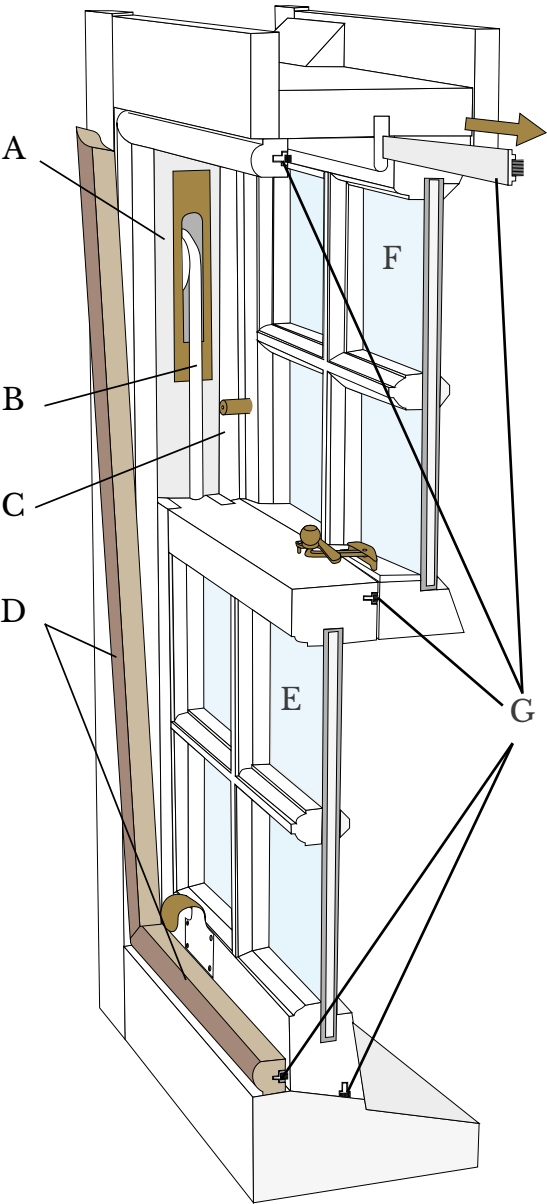
For over 40 years we have been installing our unique Sash Removal System thus avoiding problems such as losing the sash cord in the sash box frame and eliminating the need for scaffolding when painting sash windows.

The system consists of a ‘brake’ that forms the end of the sash cord and sits within housing in the side of your sashes. This will ensure that your sash cord will not break free from your sashes and end up lost in the sash box.

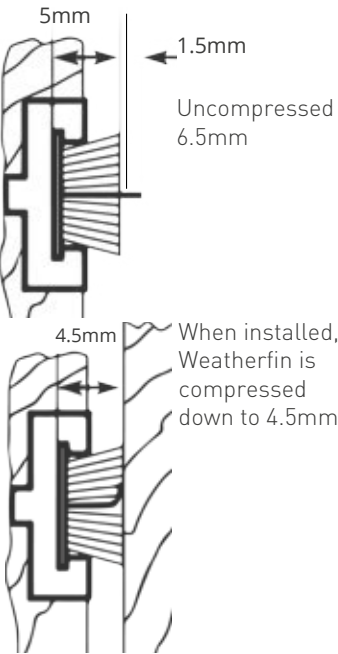
Additionally, in order for you to carry out future maintenance on your sash windows, such as painting and deep cleaning, the Sash Removal System enables you to access your sashes and dismantle your window internally without scaffolding.



A Ventrolla Renovated Window



Removable Weatherfin Pile



Sash Removal System

(SRS) is discreetly mounted in the side of the sash, allowing safe and easy removal of both the upper and lower sashes, to therefore give free access to the window box frame, and is not visible either internally or externally during the normal operation of the sash window.



Close up of the brake itself unengaged and free to move



Close up of brake in it's engaged state

Glossary Of Terms

Overview

All Ventrolla renovation work comes with a 5 year no quibble guarantee and is undertaken by experienced Installers that have been fully trained in the methodology of our unique Ventrolla system.

All of our Installers are directly employed and are CRB checked for your peace of mind.

Our approach ensures we maintain our high standards and that your beautiful historic window will be energy efficient without altering the appearance or historic value of your property.

The Ventrolla Perimeter Sealing System (VPSS)

Sash windows have a 3mm air gap around the sashes to allow the sashes to slide past each other and operate smoothly. It is this air gap that causes the inherent problems associated with sash windows, such as draughts, rattles, dust ingress and reduced energy efficiency. By installing the Ventrolla Perimeter Sealing System (VPSS) into your new timber windows we can eliminate these problems.

For further peace of mind, VPSS has achieved British Standard (BS 6375:1-2009) and has therefore been tested to withstand winds of over 71mph.

Our high performance draught proofing Weatherfin Pile becomes an integral part of your new windows, installed in our unique parting bead between the sashes, in the staff beads around the window and installed directly into the mid and bottom rails.



Full Treatment (Vertical Sliding Sash, Yorkshire Sliders and Venetian Windows)

When we renovate your windows, firstly we remove the sashes from the frame allowing us access to the sash box. Then we scrape any loose paint that has accumulated over the years and may be restricting the movement of the sashes. Sash cords are replaced, pulleys serviced and sashes correctly balanced to ensure smooth operation of the windows.

To accommodate our Ventrolla Perimeter Sealing System (VPSS), grooves are routed into the mid rail and bottom rail of the bottom sash, which makes the seal an integral part of the window. Finally new parting beads and staff beads are installed to complete the seal.

Half Treatment (Vertical Sliding Sash, Yorkshire Sliders and Venetian Windows)

Similar to our "Full Treatment" above with the exception that only the bottom sash is operable with the top sash sealed shut. The bottom sash will still have our Sash Removal System (SRS) which will help with future maintenance along with our unique Ventrolla Perimeter Sealing System (VPSS), whilst the top sash will be sealed shut using Bartoline Frame Sealant.

Casement Windows (Inc, hopper, pivot, doors)

The windows are overhauled, any paint build up that restricts the operation of the casement scraped away, the hinges are serviced and adjusted to ensure correct operation.

To accommodate our Ventrolla Perimeter Sealing System (VPSS), grooves are routed in to the inner edges of the casement or door making the seal an integral part of the structure.

If you have any questions relating to the Ventrolla service, your survey or quotation we are happy to help!
0800 0277 454, or email info@ventrolla.co.uk

Ventrolla

By Design
SASH WINDOW SPECIALISTS

For information on our services,
offices, case studies and news, visit
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HIGH LEVEL WINDOWS OFF-SITE REFURBISHMENT

To be read with Preliminaries/ General conditions.

GENERAL INFORMATION/ REQUIREMENTS

Carry out refurbishment of the existing High Level window W101-W106. All items are to be repaired off-site. A careful approach should be made to remove these items and reinstate windows back to original or to off-site; remove, sandblast, repair and apply coatings to increase the service life of these items providing a non-friction area finish life of between 15- 25 years should proper maintenance be adhered to.

Off-site Refurbishment: Allows for the following works:

1. Carefully remove glazing putties, cut around glazing compound and/or bedding putties, remove leaded lights and set aside for re-use (where deemed reasonably practicable). A careful approach should be maintained to ensure glazing is removed as a whole and without damage.
2. Carefully cut/chip around frame sealant, remove window fixing, set frame aside, tag, log and photograph all componentry relating to individual windows for transport to the works location required.
3. Return frame to works, carefully strip componentry, media blast metal frameworks and assess works required to window components, opening mechanisms and surrounding framework.
4. Remove and set aside for repair any ironmongery. Where ironmongery beyond physical and/or economical repair replacements or new may be remanufactured to match existing. Please note should replacement or remanufactured components be required this may incur extra over costs not currently included within this specification. Any replacement ironmongery that may be required should be notified to client with costs for approval.
5. Carefully clean, vapour blast (as required) and shine (to original low-sheen cast finish) to all previously un-finished ironmongery.
6. Grind any severe rust contamination to rebates and surrounding frameworks back to bright metal (as required).
7. Replace any severely corroded sections with steel profile to match existing and grind off any welds or slags ensuring a uniformity to the frame section and profile is achieved (as required). In areas where replacement sections are required this may require re-casting of profile sections.
8. Fill any pitting or scoring with two filler cement and sand to a smooth finish ensuring uniformity to frame section and profile is achieved (as required).
9. Prepare and apply coating to frameworks (Colour is TBC by the client although is believed to be RAL 9010 Pure White according to NBC Spec provided).
10. Return frame to site, carefully assemble and refit into window opening ensuring a square fit and ease of operation of openers is achieved.
11. Ease and grease pivot/casement hinge mechanisms ensuring ease of operation is achieved.
12. Re-glaze windows utilising original repaired leaded lights with glazing and bedding putties in required finish. Additional painted finishing may be required if finish cannot be achieved by paint pigmenting glazing putties.

13. Internal and external perimeter mastic seal to window surround ensuring a weather tight uniform finish is achieved from the framework to surrounding masonry.
14. Clean glass, frame, work area, log and complete quality control checks ready for hand over to client.

Please note we are unaware of any testing for lead paint. Due to the age of the building it is almost certainly present, all CLAW 2002 regulations are to be followed accordingly.

General Requirements – All Items – TBC

Weathertightness: To BS6375:Part 1

Exposure Category (Design Wind Pressure): TBC

Operational & Strength Characteristics: To BS6375:Part 2

Glazing Details: TBC

Ironmongery & Accessories: As indicated on schedules - TBC

Other requirements: Decorate internally and externally as per above.

EXECUTION

PROTECTION OF COMPONENTS

- General: Do not deliver to site components that cannot be installed immediately or placed in A clean, dry floored, covered and secure storage area.
- Stored components: Stack vertically or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads etc.

PRIMING/SEALING

- Wood and metal surfaces inaccessible after installation: Prime and/or seal as specified prior to fixing components ensure no bare surfaces are present.

BUILDING IN

- General: Not permitted unless indicated on drawings. Brace and protect components to prevent distortion and damage during construction of adjacent structure.

WINDOW INSTALLATION GENERALLY

- Installation: into prepared apertures Gapping between frame edge and surrounding construction:
- Minimum: Likely 3mm
- Maximum: Likely 20mm
- Distortion: Install windows without twist or diagonal racking ensuring a plum fit is achieved.

SEALANT JOINTS AROUND WINDOW FRAMES

- Sealant: Equal and approved products accepted
- Manufacturer: Silka Everbuild
- Product Reference: 825 LM
- Colour: TBC by client
- Application: Finish to be concaved or slightly flat equal to frame and surroundings

IRONMONGERY

- Fixing: In accordance with any relevant third-party certification conditions if applicable. Assemble and fix carefully and accurately using required fasteners that are facsimile or match as close as possible the finish to the installed ironmongery. No replacement ironmongery has been specified at this time.
- Checking/Adjusting/Lubricating: Carry out prior to completion ensuring all is correct and functioning.

END OF WORK SECTION

HIGH LEVEL WINDOWS SECONDARY GLAZING

To be read with Preliminaries/ General conditions.

GENERAL INFORMATION/ REQUIREMENTS

Supply and install secondary glazing units to fit internal High Level window reveals of W101-W106. Secondary glazing is to feature white painted aluminium frames and 6mm K toughened glass.

Ventrolla Limited , Ventrolla House, Hornbeam Square North, Harrogate, North Yorkshire HG2 8PB Tel: 0800 378 278, Email: info@ventrolla.co.uk, Web: ventrolla.co.uk

Ladders

Söll PivotLoc folding ladders with arrest system, manufactured and supplied by Safety at Height Limited, Unit 1 Pennine View, Marple, Stockport, Greater Manchester, SK6 7JW

Phone: 0161 449 5615

Mobile: 07810 885323

Email: craig@safety-height.co.uk

Website: www.safety-height.co.uk

Ladders are manufactured to have an Open Width 500 mm and when closed 195 mm

Rung distance 280mm

It must be locked open or shut with the padlock

The brackets must be fixed on the pivot points of the rungs

The foldable ladder can be used combined with all type of ladders

The ladder is complete with arresting device, end-stop, recess, connector and side handles

The system also includes a stainless steel clamp that is used to insert a padlock

The ladders can be opened or folded closed. When the ladder is closed, it has a slim and unobtrusive profile. When open, the result is a high-quality ladder with Miller® fall protection.

The foldable ladder system prevents unauthorised use of the system in the same way as the cover plate. '

Connection to aluminium ladders Material: Anodised aluminium Weight: 12.0 kg/each Part no. 23193 Connection to steel ladders Material: Anodised aluminium Weight: 12.0 kg/each Part no 23281 (not shown)

PivotLoc Fall Arrest Folding Ladder System

Fall Arrest Access System Design

vertical fall arrest access systems are covered by BS EN 353-1:2014 "Guided Type Fall Arresters on a rigid line."

All such systems must be designed specifically for fall protection, must carry a CE Mark and bear identification of the year of manufacture, manufacturer's trademark and the batch or serial number of the component.

All systems should also be clearly marked by pictogram, or other clearly seen and understood markings, on or near the anchorage device clearly stating that the device is designed exclusively for the use of personal protective equipment.

A Söll Curve Over Rail Top Extension with integrated EN795-A Eyebolt should be supplied to span the central fall arrest rail approx. 1.1m above the step off point and allow the Users safe access on and off the system.

GlideLoc Body Control 1 Fall Arrestor and Full Body harness is to be supplied for each user (2 Nr. required).

System to be installed in accordance with EN 353-1 and Manufacturers Recommendations by an installer approved by Safety at Height Limited. Systems installed by non-approved installers or sub-Installers shall not be covered by Manufacturer Warranty.

NOTE: Ladder, Change over rail and all associated fixings are to be finished in powder coated black RAL9005 by the manufacturer.

ROOF

GENERAL

The roof currently has a Bauder Total Roof System installed to the roof covering to the works area. Roofing works were completed in 2018 and as such is still under warranty. All works that are carried out to the roof are to be undertaken in a way in which the existing warranty is maintained.

All penetrations and fixings (e.g. pipework penetrations and mansafe fixings) are to be discussed and agreed with Bauder representatives in order to achieve compliance with the warranty. This is to be confirmed with the contract administrator prior to commencement of the works.

Items which are to be sat on the roof (e.g. ASHP, Cable Trays etc) a sacrificial layer of felt is to be installed between the existing roof covering and the items in order to maintain the warranty. This is to be confirmed with Bauder representatives prior to works commencement.

Bauder Contact Information

Aaron Loughlin – Bauder Area Technical Manager
a.loughlin@bauder.co.uk
07391052890

CARPENTRY

Grading standard: To BS 4978 or BS EN 519 or another national equivalent and so marked.

Strength class to BS EN 338: C & BS 5268:Part 2: C16.

Treatment to specification and British Wood Preserving and Damp-proofing Association

Type/desired service life to be 40 years.

UNGRADED SOFTWOOD TO OPENINGS AND CASINGS:

Quality of timber: Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.

Surface finish: Regularised for thickness.

Treatment to specification and British Wood Preserving and Damp-proofing Association

MOISTURE CONTENT

Moisture content of timber and wood based products at time of installation: Not more than:

Covered in generally unheated spaces: 24%.

Covered in generally heated spaces: 20%.

in continuously heated spaces: 20%.

MOISTURE CONTENT TESTING

Procedure: When instructed, test timber sections with an approved electrical moisture meter.

Test sample: Test 5% but not less than 10 lengths of each cross-section in the centre of the length.

Test results: 90% of values obtained to be within the specified range. Provide records of all tests.

MDF for SKIRTINGS, CILLS ETC

Caber Wood MDF Pro with high density for clean, smooth routing.

Reaction to fire (BS EN 1350-1): Class D.

Thermal conductivity: 0.13 W/m ·K.

E1 low emission resin binders.

Profiled edges require no edge banding or lipping.

Sculptured or textured effects can be machined or embossed and narrow or small door frames can be produced from a single piece of board.

Caber Wood MDF has a smooth surface that is ideal for painting, grain printing or the application of paper foils and veneers.

In many respects Caber Wood MDF can be treated as a high quality timber, but without the inherent defects of knots and grains.

Perpendicular and moulded edges can easily be finished without the need for elaborate filling or the application of adhesive bonded edging materials.

This characteristic derives from the uniform density of Caber Wood MDF, and the absence of core voids which would require filling.

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Sanding after moulding or routing produces a much smoother finish.

The moulded edges can be sanded with any number of different profile sanders.

Various polyurethane based abrasive wheels are available to fit to spindle moulders or in line with a double end tenoner. These wheels can be shaped to the cutter profile using an abrasive paper glued to the desired edge profile.

Machining

Caber Wood MDF is a homogeneous wood fibre material ideally suited to modern machine tooling.

Caber Wood MDF can be worked easily with all conventional woodworking machines.

It saws cleanly and drills easily.

It also shapes and routs exceptionally well, without splintering or chipping.

Caber Wood MDF is equally suited for use with most hand tools.

The internal bond strength of Caber Wood MDF gives substantially better screw holding over other types of panel product.

Most types of screws can be used, but best results are obtained with parallel thread screws. A high overall diameter to core ratio is desirable.

Where other methods of fixing are not practical, Caber Wood MDF can be fixed with nails. Nails should be spaced 150 mm apart to reduce the risk of splitting and at least 70 mm from the corners. Nailing the edges of 9 mm and 12 mm Caber Wood MDF is NOT recommended because of the risk of splitting.

Caber Wood MDF can also be fixed using staples. For best results staples should not be inserted closer than 12 mm from the edges and 25 mm from the corners. This fixing method is only recommended for applications involving light loads. Close spacing of the staples is acceptable but the legs should be aligned at an angle of 15° to the plane of the board.

Dowels with multiple longitudinal or spiral groove patterns ensure uniform adhesive spread within the joint. Smooth dowels are not recommended.

For best results, dowels should be given a total glue coverage.

Adhesives such as Polyvinyl Acetate (PVA) or Urea Formaldehyde are preferred as they have good gap filling properties, and their high solid content counteracts absorption of adhesive into the machined edges of Caber Wood MDF.

Wood veneering and applied foil and paper finishes

The smooth surface of Caber Wood MDF provides a suitable substrate for the application of wood veneers and a variety of foil and paper finishes.

Facing and backing veneers must have approximately equal thickness and moisture content to ensure flatness.

Decorative finishes

The natural appearance of the MDF surface can be enhanced using a transparent stain with a clear lacquer topcoat. High gloss or matt finishes can be achieved.

The selection of the finishing system, on the basis of chemical type will depend on the scale of production, application equipment, drying facilities and the expected performance of the finish in relation to the conditions of use.

Modern combined systems are possible, e.g., UV sealers, basecoats and AC (acid catalysed) topcoat.

Norbord Europe, Hill Village, South Molton, Devon EX36 4HP Phone: +44 (0)1769 572 991

WORKMANSHIP GENERALLY

CROSS SECTION DIMENSIONS OF STRUCTURAL SOFTWOOD AND HARDWOOD TIMBER

Dimensions in this specification and shown on drawings are target sizes as defined in BS EN 336.

Tolerances: The tolerance indicators (T1) and (T2) specify the maximums permitted deviations from target sizes as stated in BS EN 336, clause 5.3:

Tolerance class 1 (T1) for sawn surfaces.

Tolerance class 2 (T2) for further processed surfaces.

CROSS SECTION DIMENSIONS OF NONSTRUCTURAL SOFTWOOD TIMBER

Dimensions: Dimensions in this specification and shown on drawings are finished sizes.

Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1:

Clause 6 for sawn sections.

Clause NA. 2 for further processed sections.

WARPING OF TIMBER

Bow, spring, twist and cup: Not greater than the limits set down in BS 4978 or BS EN 519 for softwood, or BS 5756 for hardwood.

SELECTION AND USE OF TIMBER

Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

Notches and holes: Position in relation to knots or other defects such that the strength of members will not be reduced.

Scarf joints, finger joints and splice plates: Do not use without approval.

PROCESSING TREATED TIMBER

Cutting and machining: Maximize before treatment.

Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.

Surfaces exposed by minor cutting and/or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

PROTECTION

Generally: Keep timber dry and do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.

Timber and components: Store under cover, clear of the ground and with good ventilation. Support on regularly spaced, level bearers on a dry, firm base. Open pile to ensure free movement of air through the stack.

EXPOSED END GRAIN

Components: Seal exposed end grain with clear end grain sealer before delivery to site

JOINTING TIMBER

Use fixing and jointing methods and types, sizes, quantities and spacings of fastenings which are suitable having regard to nature of and compatibility with product/material being fixed and fixed to. Follow recommendations of manufacturers of fastenings and manufacturers of components, products or materials being fixed and fixed to, -

Fastenings for materials and components forming part of external construction to be of corrosion resistant material or have a corrosion resistant finish.

GLUED JOINTS

Adhesive to be WBP and obtain manufacturer's confirmation that adhesive is compatible with preservative/ fire retardant treatment.

Glued structural components: Fabricate to BS 6446 in clean, controlled workshop conditions.

Anticipated equilibrium moisture content of timber in service: 16 %

Anticorrosion finishes for fasteners to be:-

Galvanizing to BS 7371-6, with internal threads tapped and lightly oiled following treatment.

Sherardizing to BS 7371-8, Class 1.

Zinc plating to BS EN ISO 4042 and passivated.

All timber to be treated to current edition of the British Wood Preserving and Damp proofing Association (BWPDA) Manual as follows.

Treatment application immediately after cutting and machining timber, and before assembling components.

Licensed by manufacturer of specified treatment solution.

For each batch of timber provide a certificate of assurance that treatment has been carried out as specified.

Preservative treatment solution strengths/ treatment cycles are to be select to achieve specified service life and to suit treatability of specified wood species. Copper-organic preservative treatment to contractor's choice of manufacturer, using high pressure impregnation. Moisture content of wood at time of treatment to be not more than 28%. After treatment allow timber to dry before using.

Copper Chromium based preservative treatment to contractor's choice of manufacturer, using high pressure impregnation. Moisture content of wood at time of treatment to be not more than 28%. After treatment allow timber to dry before using. Allow timber to dry for at least 14 days before using.

Organic solvent preservative treatment to contractor's choice of manufacturer, using high pressure impregnation. Double vacuum + low pressure impregnation, or immersion. Moisture content of wood at time of treatment all as specified for the timber component at time of fixing. After treatment, timber to be surface dry before use.

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Water based microemulsion preservative treatment to contractor's choice of manufacturer, using high pressure impregnation. Double vacuum + low pressure impregnation, or immersion. Moisture content of wood at time of treatment all as specified for the timber component at time of fixing. After treatment, timber to be surface dry before use.

Fire retardant treatment to contractor's choice of manufacturer, using high pressure impregnation. Double vacuum + low pressure impregnation, or immersion. Moisture content of wood at time of treatment all as specified for the timber component at time of fixing. After treatment, timber to be redried slowly at temperatures not exceeding 65°C to minimize distortion and degradation.

PLASTERED COATINGS

Following the installation of the windows and around penetrations/alterations of ceilings and walls as required by the mechanical and electrical works. The contractor is to allow for making good the window, wall and ceiling surrounds. Allow for installing Lime coat lime plaster to infill any voids ensuring finish with local plasterwork is smooth and seamless.

Component materials for lime: sand plaster mortars
Nonhydraulic ready prepared lime putty: Slaked directly from CL 90 (high calcium) quicklime to BS EN 459-1.
Natural hydraulic lime (NHL): To BS EN 459-1.
Sand: To BS EN 13139; grading to approval.

Renovating plaster is part of the Limelite Breathable Plaster System, a system BBA approved eliminate damp and mould
Limelite - Tarmac Building Products Ltd, Swains Park Industrial Estate, Park Road Overseal, Derbyshire DE12 6JT, limelite@tarmacbp.co.uk

Part 1 - Limelite Easy Bond – breathable primer

Limelite Easy Bond is a breathable primer and keying aid designed to be used with the Limelite range of plasters.

Effective bonding

Enables plastering onto smooth substrates where there is little key allowing effective adhesion of plaster coats.

Suction control and crack prevention

Helps to prevent shrinkage and cracking by controlling suction on dry, porous substrates such as sandstone or old brickwork.

Reduces efflorescence and staining

Contains a salt inhibitor to prevent surface efflorescence. Minimises the risk of sulphate attack and staining on plasters from contaminated substrates.

Breathable

Limelite Easy Bond is breathable and won't seal moisture into the substrate like an impermeable SBR or latex base primer. It also won't re-emulsify when damp like PVA based primer.

Easy to use

Limelite Easy-Bond is easy to use, only requiring the addition of water and is applied with a brush.

Products are manufactured in the UK and certified under BES 6001 Responsible sourcing. Tarmac was the first company within the cement and lime sectors to be awarded the BES6001 'Excellent' rating across its entire product range.

Part 2 - Limelite Renovating Plaster

Limelite Renovating Plaster can be used to replace existing lime based plaster or as part of a new plaster system in both modern and traditional buildings and is an ideal solution for flood damage repair or flood damage prevention.

Features:

- Breathable – can be applied directly to damp walls and substrates
- Prevents corrosion of metal fixtures, such as angle beads and lath
- Provides a barrier to salt and efflorescence
- Lightweight – less than half the weight of a sand and cement plaster
- Insulating
- Fibre reinforced
- Reduces condensation
- Rapid drying – 24 hours per coat
- Lime content makes the product naturally aseptic, preventing mould growth

- Product Description:

Limelite Renovating Plaster has been developed specifically for use in renovation projects. It offers many of the advantages of a traditional lime plaster but with easier workability and far quicker drying times.

Breathable

Conventional gypsum plaster is hygroscopic, meaning that moisture from the atmosphere or substrate is absorbed and retained. Limelite Renovating Plaster is breathable, allowing moisture to be released.

Reduces mould growth

Improved breathability and less retained moisture helps to avoid mould growth and efflorescence. Lime is naturally aseptic and inhibits the growth of bacteria and mould.

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Versatile

Can be used on a wide range of traditional substrates such as solid brick and stone walls, wooden lath. It can also be used on walls that have previously suffered from damp or flooding.

Quick drying

A quick drying renovating plaster, it dries quickly. Additional plaster coats or paint to be applied in just 24 hours. This allows faster completion and less disruption.

Reduced shrinkage

Incorporates polypropylene fibres to control shrinkage, avoid cracking and improve the flexural strength and impact resistance of the finish.

Part 3- Limelite High Impact Finishing plaster

Limelite High Impact Finishing plaster is a hard, durable and breathable finishing plaster designed for use with Limelite Renovating Plaster as well as traditional sand and cement mixes.

It can be used to provide a hard-wearing finish for demanding applications such as social housing, commercial buildings, schools and even hospitals.

Excellent finish

Limelite plasters are lightweight, easy to mix and make it easy to achieve a smooth, matt finish that complements traditional and historic buildings. It can be left unpainted for a natural, off white finish. They are applied using standard plastering tools and techniques without any additional training requirement.

Trusted performance

Limelite Plasters have been trusted by conservation professionals in some of the most sensitive and demanding heritage environments such as historic buildings, museums and art galleries.

Tough, hard wearing finish

Designed for improved impact resistance compared to traditional lime mortar. This makes it ideal for busy domestic or commercial environments where walls may be damaged.

Reduces mould growth

Improved breathability and less retained moisture helps to avoid mould growth and efflorescence. Lime is naturally aseptic and inhibits the growth of bacteria and mould.

Quick drying

Rapid drying and can decorate in just 24 hours.

Reduced shrinkage

Low shrinkage and high flexibility reduces the chances of cracking and crazing.

BBA approved system

The Limelite Breathable Plaster System has been independently verified and certified by the BBA.

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Repair of damp or flooded properties

Can be applied to damp walls, making it a fast, effective solution for repair of flood damaged buildings. As it is breathable, it allows any moisture still present in the substrate to be released. It also helps to mitigate future flood damage by helping surfaces to dry out more quickly.

Fire resistance and thermal performance

Lime is Fire resistant – non-combustible to comply with BS476:4. The Limelite Breathable Plaster system has been proven to enhance the insulation properties of a wall.

Responsibly sourced

Products are manufactured in the UK and certified under BES 6001 Responsible sourcing. Tarmac was the first company within the cement and lime sectors to be awarded the BES6001 'Excellent' rating across its entire product range.

CATNIC Stainless Steel Plaster stop Bead PS13/3.0/SS

CATNIC Stainless Steel Angle Bead SS3.0/SS

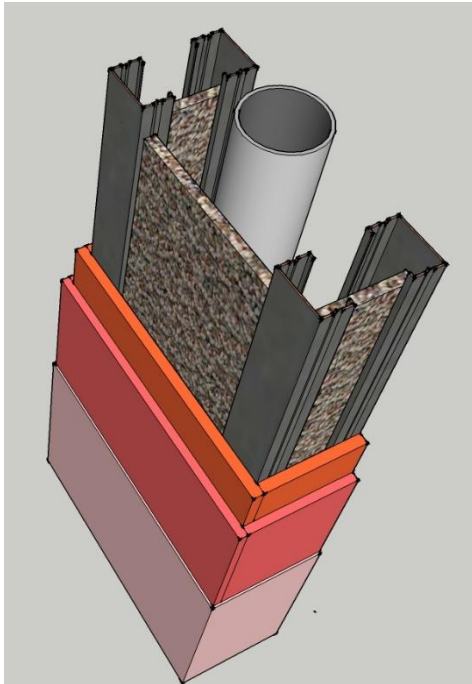
All backgrounds should be free of deleterious substances such as mould, oil and grease and be adequately prepared to accommodate the finished surface, all beading and attendant fixings at the specified depths. The use of sand or water contaminated with soluble salts in plastering mixes should be avoided, as should soluble chlorides as they are likely to increase the risk of metal corrosion.

Using stainless steel nails (compatible with bead material) complying with BS 1202: Part 1, fixed at a maximum of 600mm apart. When nailing to a solid background the line of the bead will follow the line of the background. Press the bead onto dabs of the same material as the undercoat; dabs should be applied at a maximum of 600mm apart. This method will even out minor irregularities in the line of the background, although the line of the bead will tend to generally follow the line of the background. When beads are used with metal lath backgrounds, galvanised or stainless steel tying wire may be used to secure the beads in position. Soft galvanised wire to BS 443 and soft stainless steel wire complying with BS 1554 should be used to match the bead and lath materials. All wires should be twisted tightly, and the ends bent away from the finished face of the coating. Manufactured from stainless steel to BS EN 10088-2-1.4016 in accordance with BS EN 13658-2: Metal Lath and beads - definitions, requirements and test methods. External rendering.

Stainless steel: To BS EN 10088-1, grade 1.4301 (304).

PIPE ENCASEMENT

Various SVP's, heating and plumbing pipes are to be encased in plasterboard encasements.



Channel section

SVP or other pipework

50mm Rockwool RW5 insulation batts

15mm thick Fireline board

12.7mm thick Plaster board

2-3mm plaster skim finish

METAL STUD PARTITION SYSTEM

British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX Website: www.british-gypsum.com Tel: 0844 800 1991 E-mail: bgtechnical.enquiries@bpb.com.

Nominal thickness overall 30mm

Performance criteria:

Fire resistance to BS EN 1364-2: 30 minutes.

FRAMING

Studs to be Gypframe 70S50 at 600mm centres and Gypframe 72FEC50 at abutments, openings and junctions.

Floor channel to be Gypframe 72FEC50

Gypframe GFT1 to support horizontal joints of single layer board linings.

Gypframe Fixing strap GFS1 to support horizontal joints in face layer of double layer board linings, or as an alternative to fixing T for single layer board linings.

Head condition fix Gypframe 72FEC50 up to structural soffit.

100mm Rockwool RW5 acoustic quilt cavity insulation

Internal facing to be Gyproc Fire Line Duplex 12.5mm fire resistant plasterboard with a vapour barrier, helping improve fire resistance and prevent condensation damage. boards to both sides.

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Facing to both sides to be 12.7m Gyproc Wall Board, fixed with 25mm and 40mm British Gypsum Drywall Screws at 300mm centres.

All joints taped with 50mm wide Thistle ProTape FT100 glass fibre mesh plasterers' scrim tape.

All boards to be finished with 2mm – 3mm Thistle Skim coat plaster (General use)

Fix perimeter channel Gypframe 72FEC50 to walls with 8mm Ø pre drilled holes at 65mm Min. drill hole depth and use Fischer Duopower Nylon High Performance Plug 8mm Ø x 50mm long with 6mm Ø x 50mm Self-tapping cap head screws at 300mm centres

Fix plasterboards with 41mm and 25mm British Gypsum Collated Jack-Point Screws at 300mm centres

FINISHES

All walls repair areas to receive two coats of Dulux Quick Dry Eggshell applied in 2 coats, creates a low-sheen finish. It is self-undercoating, apply 2 coats with a brush, leave at least 6 hours between coats

Paint manufacturer Dulux Trade paints, Wexham Road, Slough, Berkshire SL2 5DS Tel. 08444 817 818 www.dulux.trade-decorating.co.uk. An alternative to be before commencement of any coating work. All painting to be carried out in accordance with manufacturer's instructions

All Nibs, trowel marks and plaster splashes to be scraped off.
Over trowelled 'polished' areas to be lightly abraded
Depressions around fixings to be filled with stoppers/ fillers.
Plasterboard to have all joints filled over tape and feather out with materials recommended by textured coating manufacturer.

EXECUTION

Handling and storage of paint. Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number. Paint from more than one batch: Give notice. Store separately and allocate to distinct parts or areas of the work. Protection 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and client and to prevent damage to freshly applied coatings.

Preparation generally to BS 6150.

Remove all dirt, grease and oil provide notice if contamination of surfaces/substrates has occurred.

Surface irregularities: Abrade to a smooth finish.

Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Work well in and finish off flush with surface. Abrade to a smooth finish.

Remove all dust, particles and residues from abrasion.

Water based stoppers and fillers to be applied before priming unless recommended otherwise by manufacturer.

Junctions of walls and ceilings with architraves, skirtings and other trims to be filled with 5-6mm bead of water based acrylic caulk filler.

Doors to be eased, if necessary, before coating.

Prime resulting bare areas.

INTERNAL TIMBER

Existing MDF and Softwood to be reprimed in Dulux Quick Dry Eggshell if they were altered or modified .

Do not use any degraded or weathered surface woodwork.

Exposed resinous areas and knots: Apply two coats of knotting.

New MDF and Softwood to be fully factory applied primer in White

Pre-primed wood:

All areas of defective primer, to be abraded back to bare wood and re-prime.

Thinning and intermixing of coatings is not permitted unless recommended by manufacturer.

Overpainting: Do not paint over intumescent strips or silicone mastics.

Priming coats: Thickness to suit surface porosity. Apply as soon as possible on same day as preparation is completed.

Finish is to be even, smooth and of uniform colour and free from brush marks, sags, runs and other defects. Cut in neatly.

Prime/ seal and coat bottom edges of external doors before hanging doors.

Before assembly, seal end grain of all timber with primer or sealer, as appropriate and allow to dry.

Apply all stains as recommended by manufacturer and apply in flowing coats and brush out excess stain to produce uniform appearance.

Bead glazed coated wood: Before glazing, apply first two coats to rebates and beads.

Allow glazing compound to set for seven days.

Within a further 14 days, seal with a primer as recommended by the glazing compound manufacturer. Fully protect glazing compound with coating system as soon as it is sufficiently hard.

Extend finishing coats on to glass up to sight line.

Apply two coats of Dulux gloss to all woodwork after priming undercoating

Paint manufacturer Dulux Trade paints, Wexham Road, Slough, Berkshire SL2 5DS Tel. 08444 817 818 www.dulux.trade-decorating.co.uk. An alternative to be before commencement of any coating work. All painting to be carried out in accordance with manufacturer's instructions

METAL WINDOWS TO BE REFURBISHED

EXECUTION

Handling and storage

Coating materials to be delivered in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.

Preparation generally

Standard: To BS 6150.

Efflorescence salts to be removed.

Dirt, grease and oil to be removed. Give notice if contamination of surfaces/ substrates has occurred.

Surface irregularities are to be abraded to a smooth finish.

Joints, cracks, holes and other depressions to be filled with stoppers/ fillers. Work well in and finish off flush with surface. Abrade to a smooth finish.

Remove, all dust, particles and residues from abrasion:

Apply Oil based stoppers and fillers after priming.

Doors, opening windows and other moving parts:

Ease, if necessary, before coating.

Prime resulting bare areas.

Fixtures and fittings: Before commencing work: Remove from surfaces to be coated.

Existing ironmongery: Remove old coating marks. Clean and polish.

Hinges: Do not remove.

Replacement: Refurbish as necessary; refit when coating is dry.

Burning off old paint to have a risk assessment and action plan. Prepare, and obtain approval before commencing work.

Protect Adjacent areas from excessive heat and falling scrapings.

Removed coatings to be disposed of safely.

Galvanized, sherardized and electroplated steel to have all white rust removed.

Pretreatment: Apply one of the following: 'T wash'/ mordant solution to blacken whole surface; or, etching primer recommended by coating system manufacturer.

Steel:

Defective paintwork: Remove to leave a firm edge and clean bright metal.

Sound paintwork: Abrade to provide key for subsequent coats.

Corrosion and loose scale: Abrade back to bare metal.

Residual rust: Treat with a proprietary removal solution.

Bare metal: Apply primer as soon as possible.

Remaining areas: Degrease.

Preprimed steel:

Areas of defective primer, corrosion and loose scale: Abrade back to bare metal. Reprime as soon as possible.

Putty:

Remove all loose and defective putty.

Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.

Finishing: Patch prime, reputty as necessary and allow to harden. Seal and coat as soon as sufficiently hard.

External sealant pointing:

Remove all defective sealant pointing:.

Joint depth to be approximately half joint width and adjust with backing strip if necessary.

SEALANTS

Adshead Ratcliffe & Co Ltd, Derby Road, Belper, Derbyshire DE56 1WJ
T +44 (0)1773 826661 E arbo@arbo.co.uk

EXTERNAL WINDOW PERIMETER

Arbosil 1096 low modulus silicone sealant, suitable for perimeter sealing of polyester powder coated frames, including windows in swimming pool buildings and glass wall assemblies.

Not recommended for overpainting or for use with polycarbonate or acrylic sheeting.

Resistant to most alkalis and dilute acids; organic solvents may cause the sealant to swell and loose adhesion, but do not directly dissolve the material.

Burns, but will not readily ignite, so does not constitute a fire hazard.

Should not cause migratory staining on porous surfaces, but dirt and dust washed into or around joints by rainwater may cause pattern staining. The sealant itself may discolour in contact with rubbers, bituminous or pitch-based DPCs, etc.

Contact with some metals may also cause discolouration.

Very good UV resistance.

Correctly applied, the sealant should not require maintenance, and has an anticipated life in excess of 25 years.

See technical literature for standards with which the sealant complies.

Health and safety: The product is labelled as harmful. Its use should be recorded in the project Health and Safety Plan.

Application temperature:

+5°C to +50°C.

Curing time:

7–14 days depending on joint configuration and atmospheric conditions.

Joint dimensions: Minimum 6 mm; maximum 25 mm (single application), 60 mm (multiple applications)

Porous substrates: Minimum 10 mm; maximum 15 mm.

Non-porous substrates: Minimum 6 mm; maximum 15 mm.

Joint backing:

A combined joint filler/ bond breaker, such as closed cell foam polyethylene rod, should always be used to ensure that the sealant adheres only to the joint faces and not to the back. Bond breaker tape should be used where the joint has been packed out with fibre-board.

A primer is not required for polyester powder coated surfaces, mill finished aluminium or anodized aluminium or glass. Primers are available to suit other substrates – refer to technical literature for details.

Primer: Arbo Primer 2402 . - Required for stainless and galvanized steel.

Primer: Arbo Primer 2650. - Required for brickwork, concrete and stained timber frames.

JOINTS

Presealing checks:

Joint dimensions: Within limits specified for the sealant.

Substrate quality: Surfaces regular, undamaged and stable.

Joints not fit to receive sealant: Submit proposals for rectification.

INTERNAL JUNCTIONS

Where internal plasterboard finishes abut windows, skirtings, architraves etc use Arbocaulk - Water Based Acrylic Sealant, high quality decorators caulk which is one part Water Based Acrylic Sealant and is suitable for internal pointing applications.

Arbocaulk exhibits good adhesion to a wide variety of common construction substrates without the need of a primer.

PREPARING JOINTS

Surfaces to which sealant must adhere:

Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.

Clean using materials and methods recommended by sealant manufacturer.

Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.

- Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps. - Protection: Keep joints clean and protect from damage until sealant is applied.

APPLYING SEALANTS

Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.

Environmental conditions: Do not dry or raise temperature of joints by heating.

Sealant application: Fill joints completely and neatly, ensuring firm adhesion to substrates. - Sealant profiles:

Butt and lap joints: Slightly concave.

Fillet joints: Flat or slightly convex.

Protection: Protect finished joints from contamination or damage until sealant has cured.

FIRE RESISTANT OPENINGS/PENTRATIONS

Where pipework, Cables, building structure passes through the various walls.

The installation of ROCKWOOL's Firestop Compound provides up to six hours' fire protection to provide a fire-resisting seal around service penetrations through all fire-rated walls and floors.

<https://www.rockwool.com/uk/products-and-applications/product-overview/fire-stopping-products/firestop-compound-en-gb/>

Independent tests have shown, when reinforced, Firestop Compound offers masonry and concrete walls or concrete floors with up to 360 minutes' protection for both integrity and insulation, and when un-reinforced, it offers up to 240 minutes' protection.

Existing compound installations can be easily drilled to allow the provision of additional or replacement services which can subsequently be re-sealed. The ROCKWOOL Firestop product is easy to use as it's a specially formulated gypsum-based compound, which is mixed with water to be trowelled or poured around service penetrations.

Features and benefits:

- Smoke seal.
- Suitable for sealing around most types of service.
- Load-bearing capability.
- Simple installation.
- No smoke emission.
- Unaffected by humidity.

EXECUTION

Workmanship generally

Gaps: Seal gaps between building elements and services, to provide fire resistance and resist the passage of smoke.

Adjacent surfaces: Prevent overrun of sealant or mortar onto finished surfaces.

Intumescent foam

New joints: Remove builder's debris, mortar droppings, grease, and the like.

Old joints: Clean and remove existing sealant from the joint.

Priming: Lightly moisten substrate with water.

Application: Fill joint to approximately half its depth, allowing foam to expand to face of joint.

Trimming: Do not trim or cut the face of the cured foam.

Intumescent mortar

Sequence: Install mortar after services are permanently installed.

Loose dust and combustible materials: Remove from the opening.

Shuttering: Install suitable shuttering panels to the faces of the opening.

Temperature: Do not apply mortar when it could be damaged by frost.

Mortar cure: Do not disturb mortar before final set has taken place.

Shuttering: Remove after mortar has cured.

FirePro® Ablative Coated Batt

Fit tight Batts into void between the floor or wall and the penetrating services.

Face of batts: Flush with the surface of wall, floor or soffit.

Gaps between services and batts: Seal with fire resisting sealant.

Hidden gaps can leave buildings vulnerable to the spread of fire, particularly following the creation of voids for the passage of services. The ROCKWOOL Ablative Coated Batt provides a tested, fire resistant seal which can also improve sound attenuation.

FirePro 50mm Ablative Coated Batt INSTALLATION

1. Make sure that the area within the aperture is clean of any debris and remove any dust from the edges.
2. Cut ROCKWOOL Ablative Coated Batt to the size and shape required to fit the aperture ensuring that batt will make a tight fit with all edges of the aperture.
3. Cut rectangular holes from the coated batt to accommodate cable trays or ladders containing cables.
4. Cut the Coated Batt across its width at the mid-point of each rectangular hole to enable the Batt to be fitted into the aperture.
5. Apply ROCKWOOL Acoustic Intumescent Sealant to all edges of the Batt ensuring that an even cover is achieved over the entire thickness of the Batt. This should include the outer edges of the Batt and the edges of the cuts made across the Batt to allow fitting into the aperture.
6. Insert the Batt into the aperture.
7. Apply a bead of ROCKWOOL Acoustic Intumescent Sealant approximately 15mm wide around the perimeter of the Batt ensuring that all gaps between the Batt and surrounding edges are fully filled.
8. Apply a bead of ROCKWOOL Acoustic Intumescent Sealant approximately 15mm wide where cables pass through the Batt. Ensure that the sealant fully enclosed each cable within the tray or ladder and that all gaps are fully filled.
9. Repeat step 7 and 8 on the other side of the Batt.

Other installation information: FirePro Ablative Coated Batts are not intended for use as load-bearing seals.

Pipe collars

Integrity: Fit tightly and accurately to structure and pipe. Fill gaps between collar and structure and/or pipe with intumescent material.

Fixings: Plastics free.

Clearance around service pipe: Minimum possible, pipe in contact with sleeve.

Installation: Bed solid.

Exposed to view: Finish bedding and sealing neatly.

COMPLETION

Cleaning

Masking tapes: Remove.

Cleaning: Clean off splashes and droppings. Wipe down finishes.

Seal all pipes cables ducts etc with Intumescent Sealant

ROCKWOOL FirePro® High Expansion Intumescent Sealant

ROCKWOOL FirePro® High Expansion Intumescent Sealant is a water-based acrylic sealant containing graphite, developed for sealing various penetrations. When exposed to fire and heat, the high expansion intumescent sealant expands to seal voids that form around building services, preventing the passage of fire and smoke between compartment elements.

FBC system compatible for use with cPVC pipework. "FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® piping systems and products made with TempRite® Technology." "The FBC System Compatible Logo, FBC™, FlowGuard Gold®, BlazeMaster®, Corzan®, and TempRite® are trademarks of Lubrizol Advanced Materials, Inc. or its affiliates." Not only does this product have flexible use but is suitable for a range of materials. Approved for use on LUL surface and sub-surface premises having been tested and achieves low smoke and toxicity.

Accreditations:

- Tested to EN 1366-3 & 4 standards and classified to EN 13501-2
- CE Marked to EAD 350454-00-1104 - ETA-20/1131
- FBC Approved
- The product has been authorised for use in LUL surface and sub-surface premises (LUL Ref: 2454) when installed in accordance with the data sheet.
- 3rd party certified through UL-EU
- ROCKWOOL High Expansion Intumescent Sealant offers up to 4 hours* of fire resistance for a range of combustible pipes, metal pipes, cables and other permanent services.
- Versatile – this sealant can be used to protect various permanent services, such as single cables, bunches and insulated pipes.
- Appropriate for LUL surfaces and sub surface premises but must be installed in accordance with ROCKWOOL guidelines.

24615 MCC Equans PSDS - Decarbonisation Scheme of Withington Library

- Low maintenance – this High Expansion Intumescent Sealant requires no ancillaries, which makes it a cost-effective solution to fire protection.

Use Rockwool FirePro® Insulated Fire Sleeves Fire stopping and thermal insulation solution for pipework

Many combustible pipe systems are often retro-fitted through walls and floors, compromising the fire performance of the compartment. FirePro® Insulated Fire Sleeves are comprised of stone wool fibres and graphite intumescent that can resist fire, reduce heat loss and provide acoustic insulation.

Contact ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY

Email: technical.solutions@rockwool.com

Telephone: [01656 868 490](tel:01656868490)

<https://www.rockwool.com/uk/products-and-applications/product-overview/fire-stopping-products/firepro-high-expansion-intumescent-sealant-en-gb/>

FIXINGS AND ADHESIVES

GENERAL

Definitions

In this section the following definitions are used:

- Fixing: The act of securing an object to another object or background, e.g. Fix A to B with screws at 200 mm centres.
- Fixings: Systems that fix objects together, composite connection items comprising, e.g. nuts, bolts, washers, spacers, cover caps.
- Fasteners: Components that fix objects together, e.g. screws, nails..

PRODUCTS

Fasteners generally

Materials: To have bimetallic corrosion resistance and atmospheric corrosion resistance appropriate to fixing location.

Appearance: Submit samples on request.

Packings

Material: Noncompressible, corrosion resistant, rot proof.

Area of packings: Sufficient to transfer loads.

Masonry fixings

Light duty: Plugs and screws.

Heavy duty: Expansion anchors or chemical anchors.

Pelleted countersunk fixings

Pellets: Cut from matching timber, grain matched.

Plugs

Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

Adhesives generally

Standards:

- Hot-setting phenolic and aminoplastic: To BS 1203
- Thermosetting wood adhesives: To BS EN 12765.
- Polyvinyl acetate thermoplastic adhesive: To BS 4071.

Pelleted countersunk fixings

Pellets: Cut from matching timber, grain matched.

Powder actuated fixing systems

Types of fastener, accessories and consumables: As recommended by tool manufacturer.

Tools: To BS 4078-2, Kitemark certified.

Operatives: Trained and certified as competent by tool manufacturer.

EXECUTION

Fixing generally

Types, sizes and quantities of fasteners/ packings and spacings of fixings: Selected to retain supported components without distortion and loss of support.

Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.

Components, substrates, fixings and fasteners of dissimilar metals: Isolate with plastics washers/ sleeves to avoid bimetallic corrosion.

Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

Appearance: Fixings to be in straight lines at regular centres.

Fixing packings

Function: To take up tolerances and prevent distortion of materials/ components.

Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.

Locations: Not within zones to be filled with sealant.

Fixing cramps

Cramp positions: 150 mm (maximum) from each end of frame sections and at 600 mm (maximum) centres.

Fasteners: Fix cramps to frames with screws of same material as cramps.

Fixings in masonry work: Fully bedded in mortar.

Pelleted countersunk fixings

Finished level of countersunk screw heads: 6 mm (minimum) below timber surface.

Pellets: Cut from matching timber, match grain and glue in to full depth of hole.

Finished level of pellets: Flush with surface.

Plugged countersunk screw fixing

Finished level of countersunk screw heads: 6 mm (minimum) below timber surface.

Plugs: Glue in to full depth of hole.

Finished level of plugs: Projecting above surface.

Powder actuated fixing systems

Powder actuated fixing tools, method of use: To BS 4078-1.

Operatives: Trained and certified as competent by tool manufacturer.

Applying adhesives

Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.

Support and clamping during setting: Provide as necessary. Do not mark surfaces or distort components being fixed.

Finished adhesive joints: Fully bonded. Free of surplus adhesive.

TARMAC

PRODUCTS

Chippings to BS EN 13043 and PD 6682-2.

Bitumen emulsion: To BS 434-1.

Cutback bitumen: To BS EN 12591.

Asphalt concrete to BS EN 13108-1.

EXECUTION

Laying generally to BS 594987.

Remove loose material, rubbish and standing water.

Adjacent work: Form neat junctions. Do not damage.

Channels, kerbs, inspection covers: Keep clean.

New Tarmac areas

- Surface course

The top layer, usually made of a small, hard aggregate in a bitumen or asphalt binder. The surface course for a car park is recommended to be 25 mm thick.

- Binder course

The load-bearing layer that strengthens the pavement. The binder course should be at least 70 mm thick.

- Sub-base

A layer of crushed rock or hardcore that acts as a load-bearing layer. The sub-base is usually 225 mm thick.

- Sub-grade

Compacted soil with any vegetation or loose topsoil removed.

Keep traffic-free until cooled to prevailing atmospheric temperature.

Prevent damage. Do not allow rollers to stand on paving at any time.

Lines and levels to have regular falls to prevent ponding.

Overall texture to be smooth, even and free from dragging, tearing or segregation.

Surface treatment to existing paving:

Surface to receive dressing and kept clean and dry. All patching complete.

Accuracy

Permissible deviation from required levels, falls and cambers in accordance with BS 594987, Table 7.

Contractor's use of Tarmac areas

Defer laying of final surfacing until as late as practicable.

Immediately before laying final surfacing, clean and make good the base/ binder course and allow to dry. Uniformly apply, without puddles, a tack coat of sprayed bitumen emulsion of a suitable grade to BS 434-1 at 1.5–2.0 kg/m². Allow emulsion to break completely before applying surfacing.

Uncoated chippings for surface dressing

Applying binder at a rate to be in accordance with Transport Research Laboratory Road Note 39.

Cutback bitumen : Do not use at temperatures below 15°C.

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Modified binders: Do not use without prior approval. Adjust rate in accordance with manufacturer's instructions.

Applying chippings:

Coverage: 100–105% shoulder to shoulder to BS 598-108.

Compaction: Roll. Do not crush chippings.

Excess chippings to be removed before traffic is allowed.

Chippings loosened by traffic to be removed when instructed.

KERBS

Precast concrete kerbs, edgings and channels to BS EN 1340. Check existing profile and replicate profile with new kerbs

Concrete for foundations and haunching to BS 8500-2.

Steel bar dowels for haunching to BS 4482.

Mortar for bedding and jointing to be Portland cement to BS 12, Class 42.5.

Sand to BS EN 12620, Grade 0/4 or 0/2 (MP).

EXECUTION

Laying kerbs, edgings and channels

Cutting: Neat, accurate and without spalling. Form neat junctions.

Long units (450 mm and over) minimum length after cutting: 300 mm.

Short units' minimum length after cutting: The lower of one third of their original length or 50 mm.

Bedding: Position true to line and level along top and front faces, in a mortar bed on accurately cast foundations.

Securing: After bedding has set, secure with a continuous haunching of concrete.

Haunching dowels

Size: 12 mm diameter, 150 mm long.

Installation: While concrete is plastic, insert dowels vertically into foundation.

Centres: 450 mm.

Distance from back face of kerb: 50 mm.

Projection: 75 mm.

Haunching: Rectangular cross section, cast against formwork, fully enclosing and protecting dowels.

Channels

Installation: Lay to an even gradient. Avoid ponding and backfall.

Lowest points of channels: 6 mm above drainage outlets.

Drainage channel systems

Installation:

Constant depth channels: Lay to an even gradient. Avoid ponding and backfall.

Commence laying from outlets.

Channel systems with a built in fall: Lay with top of channels level, installed in correct sequence to form an even gradient

without ponding or backfall. Commence laying from outlets.

Silt and debris: Immediately before handover, remove from entire system.

Washing and detritus: Safely dispose without discharging into sewers or watercourses.

Accuracy

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Deviations (maximum):

Level: ± 6 mm.

Horizontal and vertical alignment: 3 mm in 3 m.

Mortar joints

Jointing: As laying proceeds, butter ends of units with bedding mortar. Completely fill joints.

Narrow mortar joints: Tightly butt. Clean off surplus mortar immediately.

Tooled mortar joints: Tool to a neat flush profile.

WATER HEATER BOXING

Application

IPS boxing for water heaters to be wall mounted above existing wash basin units to store proposed water heaters as indicated in drawings DWG24615.112.

Description

Medspace Solutions IPS Duct Panel Systems Standard model up to 1200mm in width, 200mm in depth and up to 2750mm high. Standard variants include a Wash Basin, a DDA Wash Basin and a WC version. MRMDF internal framework. 18mm melamine faced chipboard panels with 2mm PVC high impact edging. With 30mm flash gaps as standard also available closed with minimal (3mm) gaps for high moisture areas. Built in sloping tops, also available with bulkhead to / through ceiling. Department of Health Standard (HBN) 00-10 compliant. Can be supplied with HBN compliant sinks, taps and WC's. (plumbing or electrical connections by others)

Materials:

	Material
Framework	18mm (MRMDF) moisture resistant medium density fibreboard
Panels	18mm (MFC) melamine faced chip - board
Flash gaps	30mm (or 3mm high moisture)
Bulkhead / Sloping tops	Standard bulkhead to or through ceiling (depending on design) Optional – sloping

Description

IPS / Duct panel system with moisture resistant MDF internal framework fitted with HPL, SGL or MFC panels.

Inset panels are also available, 400 x 400/ 600 mm flush-fitted, rebated access panels. Hinged and lockable. Panels fitted to/ through ceiling or can be fitted with sloping tops.

Manufactured from MRMDF internal framework and 18 mm medium density fibreboard bonded with high pressure laminate panels with 2 mm PVC high impact edging or 13 mm solid grade laminate panels.

With 30 mm flashgaps as standard and also available closed with minimal (3 mm) gaps for high moisture areas.

Built in sloping tops, also available with bulkhead to / through ceiling. Department of Health Standard (HBN) 00-10 compliant. Can be supplied with HBN compliant sinks, taps and WC's. (plumbing or electrical connections by others).

General information

Color	Black
	Blue
	Brown

	Green
	Grey
	Show more
Material	High pressure laminate (HPL) Solid grade laminate (SGL) MFC
Shape	Rectangle
Length	300 mm
Width	700 mm
Height	800 mm
Uniclass	Ss 25 25 45 25 Duct and wall panel lining systems Primary
CAWS	K32/160 Duct linings – preplumbed panels and proprietary frames K32/150 Duct/ wall linings – panels and proprietary frames K32/15 Duct/ wall lining panels

Specification data - Duct and wall panel lining systems

Pre-plumbed and prefixed sanitary appliances and fittings	Sink. Tap. WC. Manufacturer guidance HBN compliant components.
Panels	18 mm (MFC) melamine faced particleboard.
Fasteners	Mix of Ke Ku hook and peg push on, pull-off panels and hinged and lockable.
Supporting frame	-
Duct panels	18 mm (MRMDF) moisture resistant medium density fibreboard.

Wall panels	18 mm (MRMDF) moisture resistant medium density fibreboard.
Flash gap panels	30 mm. 3 mm (high moisture).
Sloping top	Standard bulkhead to or through ceiling (depending on design). Optional - sloping tops 150 mm at rear.
Plinth	None.
Type:	Wash basin. DDA wash basin. WC.
Colour	White Egger® W980 (ST2) with Hranipex® HU10980 White Pearl edging. Light Grey Egger® U708 (ST9) with Hranipex® HU17035 Grey Pearl XG. Light Grey Egger® U708 (ST9) with Hranipex® HU15510 Blue Pearl edging.
Sustainability data	
Contains Red List materials	No
Country of material origin	Europe
Country of product manufacture	United Kingdom
Material	High pressure laminate (HPL) Solid grade laminate (SGL) MFC
Recyclability	Made from materials that are widely accepted by recycling facilities.
Recycled content	30 %
As defined in clause 7.8 of BS EN ISO 14021	

FILOseal+

FEATURES

- Gas & Water Tight - Up to 1 Bar
- Resistant to: Hydrocarbons (Petrol, Diesel, Ethenol, LPG, Adblue)
- Resistant to: Methane, H2S, Chlorine, and many other gases (Nedlab)
- Resistant to Rats & Termites (Mastotermes Darwiniensis) Northern Australian termites.
- Excellent Adhesion
- Flexible one component adhesive & sealing compound (MD+)
- Non-Corrosive
- Non Hazardous
- Complies with ATEX regulations
- Seals all common materials
- Suitable for retrofit
- Re-enterable
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-d.



FILOseal+HD

All the benefits of the FILOseal+ with the addition of the following features:

FEATURES

- Gas & Water Tight - Up to 2 Bar
- Seals Large LV, MV, & HV cables
- 100kg Pulling force on the cables
- 10xd at 45°, with 1 bar pressure



FILOseal+HD FIRE

All the benefits of the FILOseal+HD with the addition of the following features:

FEATURES

- Fire Resistant up to 4 hours BS EN1366-3 2009 & AS1530.4-2014
- Tested to London Underground - LUL S1085
- Tested to European rail applications - BS EN 45545-2:2013
- Tested to French rail standard Clt NF F16-10
- Tested to Smoke index - ISO 5659-2:2012
- Tested to Oxygen index - BS EN ISO 4589-2:1999
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-b





FILOseal+

universal re-enterable duct sealing system

duct opening up to Ø 200 mm

Larger sizes available upon request

Duct sealing system FiloSeal+ is a universal solution for sealing cables and pipes in ducts, drilled holes or transit frames.

The tri-flexible foam makes positioning and separation of the cables very simple while also providing a backing for the MD+ to be applied on to. FiloSeal+ is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required. The Filoform duct sealing system FiloSeal+ uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicone compound that cures with air (Humidity).

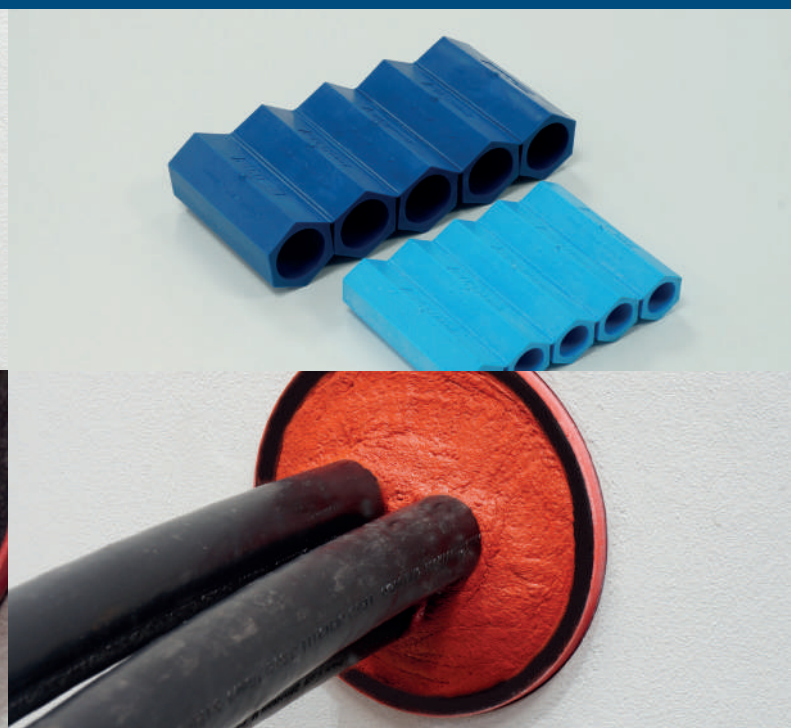
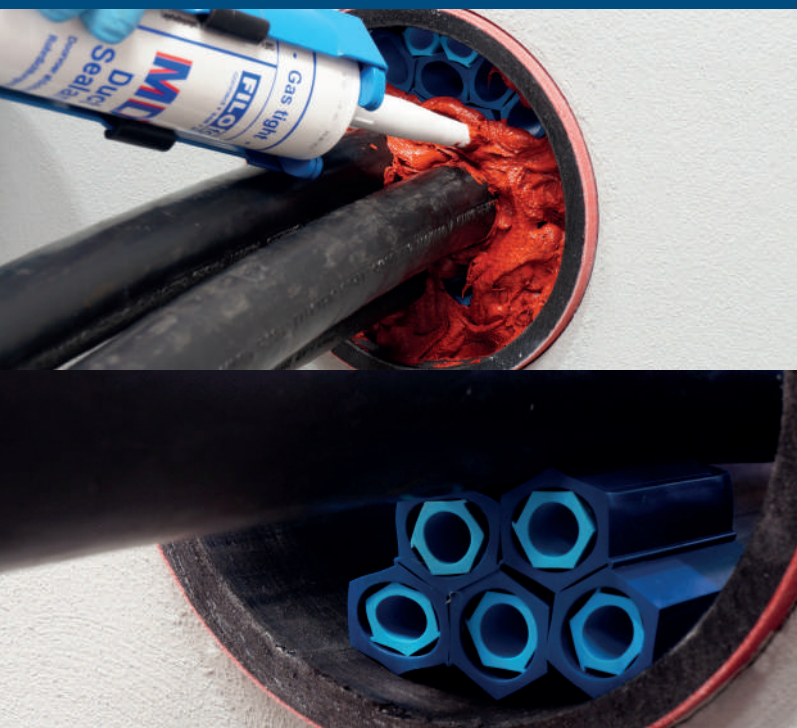
After application and full curing the thixotropic MD+ forms a plastic elastomer mass with special qualities effectively sealing and bonding, while providing a high level of durability.

FEATURES

- Flexible, one component, adhesive and sealing compound in a cartridge (310ml)
- High levels of Gas and Water tightness
- Excellent adhesion
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrocarbons
- Suitable for sealing underground cable ducts set out within the APEA 'Blue Book'
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Resistant to rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-d.
- Suitable for any shaped duct / bore hole / opening
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Up to 1 bar pressure resistance
- Quick & easy to install, especially in vertical ducts
- Non Hazardous
- Over 25 years of operational experience

Product Name	Duct diameter min.-max. (mm)	Maximum cable diameter in the duct (mm)	Order unit
FiloSeal+125 mm	Ø 125 max.	Ø 95 max.	per piece
FiloSeal+ 200 mm	Ø 200 max.	Ø 160 max.	per piece

For enquiries contact our sales department.



FILoSeal+HD

universal re-enterable duct sealing system

duct opening up to Ø 250 mm

Larger sizes available upon request

- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

FiloSeal+HD provides a strong support system using the hexagonal tubes which builds up like a honeycomb structure. FiloSeal+HD is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required. The Filoform duct sealing system FiloSeal+HD uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicon compound that cures with air (Humidity). The unique design of the hexagonal tubes makes positioning and separation of the cables very simple while also providing a strong backing for the MD+ to be applied on.

FEATURES

- High levels of Gas and Water tightness
- Excellent adhesion, applicable to all common building materials
- Shows Fire resistance properties
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- Suitable for any shaped duct / bore hole / opening
- Quick and easy installation
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Resistant to Rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites
- Resistant to hydrocarbons

Product Name	Duct diameter min.-max. (mm)	Order unit
FiloSeal+HD - 75 mm > 110 mm	Ø 110 max.	per piece
FiloSeal+HD - 125 mm > 160 mm	Ø 160 max.	per piece
FiloSeal+HD - 180 mm	Ø 180 max.	per piece
FiloSeal+HD - 200 mm	Ø 200 max.	per piece
FiloSeal+HD - 225 mm	Ø 225 max.	per piece
FiloSeal+HD - 250 mm	Ø 250 max.	per piece

Watch the FiloSeal+HD productvideo online on our website.



FILoSeal+HD FIRE

FiloSeal+HD **FIRE** provides a strong support system using our specially formulated material called Formite which builds up like a honeycomb structure.

FiloSeal+HD **FIRE** is suitable for sealing any cable configuration or pipes contained in one duct and also allows easy re-entry of the seal to add or remove cables or pipes as required.

The Filoform duct sealing system FiloSeal+HD **FIRE** uses our MD+ sealant which is easily applied from a skeleton gun. The high quality, one component, flexible sealant "MD+" is based on a silicon compound that cures with air (Humidity).

The unique design of the hexagonal tubes makes positioning and separation of the cables very simple while also providing a strong backing for the MD+ to be applied on.

- Up to 4 hours fire resistance in ducts
- Tested to BS EN1366-3 2009 & AS1530.4-2014
- Tested to London Underground - LUL S1085
- Tested to European rail - BS EN 45545-2:2013
- Tested to French rail standard Clt NF F16-101
- Tested to Smoke index - ISO 5659-2:2012
- Tested to Oxygen index - BS EN ISO 4589-2:1999
- Up to 2 bar Pressure Resistance
- 100Kg pulling Force on the cables when sealed
- 10xd at 45°, with 1 bar pressure bending test

FEATURES

- Gas & Water tight up to 2 bar
- Excellent adhesion, applicable to all common building materials
- Fire resistant to BS EN1366-3:2009 & AS1530.4-2014
- High Oxygen index
- Resistant against Water, Alkaline, Chemical agents
- Resistant to Hydrogen Sulphide / Methane and many other Gases (NedLab)
- Non corrosive
- Solvent free
- Shock absorbing
- Non toxic, neutral and almost odourless
- Complies with ATEX regulations
- Suitable for any shaped duct / bore hole / opening
- Quick and easy installation
- A complete kit
- Seals all known materials, PVC & PE sheathed cables, PILC, (HD) PE pipes
- Suitable for renovations, can be installed retrospectively
- Resistant to Rats
- Resistant to termites (Mastotermes Darwiniensis) Northern Australian termites
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-b

Product Name	Duct diameter min.-max. (mm)	Order unit
FiloSeal+HD FIRE - 75 mm > 110 mm	Ø 110 max.	per piece
FiloSeal+HD FIRE - 125 mm > 160 mm	Ø 160 max.	per piece
FiloSeal+HD FIRE - 180 mm	Ø 180 max.	per piece
FiloSeal+HD FIRE - 200 mm	Ø 200 max.	per piece
FiloSeal+HD FIRE - 225 mm	Ø 225 max.	per piece
FiloSeal+HD FIRE - 250 mm	Ø 250 max.	per piece

Watch the FiloSeal+HD product video online on our website.