

# **F30**

# Accessories/Sundry items for Brick/Block/Stone Walling

This guide provides an introduction to writing specifications for accessories/sundry items for masonry and stone walling and should be read in conjunction with the guide Introduction to Writing Architectural Specifications. Together these guides provide an in depth reference for the development of specifications based on a simple framework that can be applied to projects of all sizes.

# **Contents**

This guidance note covers the prescriptive specification of accessories and sundry items for masonry and stone walling. Reference should be made to the following sections for the specification of pre-cast concrete units, damp proofing and tanking membranes:

- F31 Precast concrete sills/lintels/copings/features
- J20 Mastic asphalt tanking/damp proofing.
- J30 Liquid applied tanking/damp proofing.
- J40 Flexible sheet tanking/damp proofing.

Desigr	n Considerations	2	
•	Vapour Barriers	2	
•	Membranes & Cavity Trays	2	
•	Walls Ties/Restraint	2	
•	Joint Reinforcement	3	
•	Masonry Support Systems	3	
•	Cavity Closers/Barriers	3	
•	Cavity Ventilators/Weep Holes	3	
•	Air Bricks/Grills	4	
•	Movement Joints	4	
•	Lintels	4	
•	Pre-cast Sill Units	4	
•	Flue Lining Systems	5	
•	Chimney Pots & Cowls	5	
Specification Guidance		5	
•	Form of Specification	5	
•	Scope	5	
•	Products	6	
•	Accessories	7	
•	Workmanship	7	
•	Samples, Test, Certificates, etc	1	
Standa	Standards & References		

# **Design Considerations**

The overall performance of masonry is dependent upon the incorporation and utilisation of various accessories and sundry times. The requirement for these items depends upon the level of performance the masonry must achieve and any specific project requirements.

Project requirements include functional criteria as well budget; design life; time and environmental considerations. Aesthetic considerations are typically less important as most accessories and sundry items will not be visible in the final works. Once requirements are established the range of accessories and sundry items can be identified together with key characteristics and associated levels of performance required.

The selection of products and materials should be undertaken in consultation with manufacturers and with reference to relevant British Standards, Statutory Regulations and current best practice.

#### **Vapour Barriers**

Vapour membranes are available with differing properties, designed for different uses and methods of installation. Key characteristics include:

- · Performance, e.g. resistance to moisture.
- Resistance to contaminants, e.g. cement.
- Tensile strength, e.g. increased resistance to tearing by provision of a reinforcing grid.
- Reflective properties.
- Method of fixing.

Performance is typically reported in relation to a membranes suitability for differing levels of internal humidity or vapour load. BS 5250 Code of practice for control of condensation in buildings set outs Internal Humidity Classes for different types of buildings and levels of usage. These Humidity Classes can be used to state levels of performance achieved/required. Note not all manufacturers reference these Humidity Classes to report performance and suitability should be checked in each instance.

Some vapour barriers also provided reflective properties. These are designed to help reduce the heat loss from the building, they themselves though do not have any thermal properties.

Factors determining the level of performance required are:

- Type of masonry construction.
- Location.
- Environment.
- Method of fixing.

#### **Membranes & Cavity Trays**

Characteristics that determine the performance of membranes and cavity trays include their resistance to:

- · The passage of moisture.
- The passage of gases, i.e. Radon and Carbon Dioxide.
- UV light (where membrane will remain exposed for a period of time).
- Chemical attack from contaminants that may be present in the soil.
- Sliding and extrusion under differing loads.

Consideration must be given to the location of membranes, type of masonry construction and resultant compressive loads they will be put under (e.g. flexible DPCs are not suitable for use at the base of free standing walls and membranes with poor slip resistance under low loads should not be used under copings).

Additional considerations include the:

- Method of fixing with respect to type of membrane, type of construction and location.
- Width of membranes and cavity trays. Membranes and cavity trays must be sufficiently wide to ensure that they extend thought the thickness of the wall and project adequately beyond internal and external faces, i.e. by 5mm.

#### Wall Ties/Restraint

Note wall ties/restraint products and systems will generally be selected and specified by the Structural Engineer where employed.

The types of wall tie/restraint required and their characteristics will depend upon:

- Type of construction (timber frame or masonry).
- Type of masonry.
- · Cavity width.
- Location.
- · Height of masonry panels.
- Design life.

Wall Ties may be made from stainless steel (suitable for any application) or galvanised steel (suitable for internal walls and the inner leaf of cavity walls only, i.e. not suitable for cavity ties).

Wall ties should be of sufficient length to ensure that they are properly embedded into the masonry (minimum 50mm typically recommended by manufacturers) allowing for site tolerances in masonry construction, cavity width and centring of the tie.

The density and positioning of wall ties is based on the height of the building and its geographical location. Recommendations on the spacing and positioning of wall ties are provided within PD 6697: Recommendations for the design of masonry structures. Guidance is also available from most wall tie manufacturers.

Where partial fill insulation is utilised as part of the masonry construction or where ties span movement joints additional accessories that may be required. Examples include:

- · Thermal breaks.
- Insulation retaining clips.
- · De-bonding sleeves, where ties bridge movement joints.

#### **Joint Reinforcement**

Reinforcement should be made from stainless steel where it is to be used in external masonry, with galvanised steel suitable for internal walls and the inner leaf of cavity walls only. The specification of joint reinforcement will depend upon the width of masonry, joint size and loadings.

Bed joint reinforcement must be completely surrounded with mortar and lapped at joints so continuity of reinforcement is maintained. Around corners prefabricated corner reinforcement can be provided by some manufacturers, however potential lead in time, need to be checked where units are made to order.

#### **Masonry Support Systems**

The selection of an appropriate masonry support system depends upon a variety of factors including:

- Type of cladding.
- Frame type.
- Masonry load.
- Corrosion resistance.

Support systems must be adjustable in all three dimensions to accommodate building tolerances and movement, including:

- Deflection of the frame and the support system itself.
- Differential movement.
- Expansion of masonry panels.
- Design/construction tolerances of masonry and supporting structure.

Grade 1.4301 (304) stainless steel systems will be suitable for most building applications. In corrosive environments, or where part of the support will remain exposed, grade 1.4401 (316) should be considered.

Where support systems are fixed to a structural steel frame the risk of bi-metallic corrosion must be assessed. Any risk identified may be mitigated by the use of isolation patches.

#### Insulation

Insulation products vary in type and performance. Characteristics determining the appropriate type of insulation include:

- In cavity construction, if insulation can fully or only partially fill the cavity.
- Whether moisture might permeate the insulation.
- The performance and durability of insulation when moist.
- · Method of fixing/restraint.

The level of thermal performance required, and thereby the thickness of insulation, will be subject to the specification and design of the whole wall and the overall level of thermal performance required.

#### Cavity Closers\Barriers

The type of cavity closer/barrier and the required performance thereof will be determined by:

- Width of cavity.
- · Fire rating required.
- · Method of fixing.

Closers/barriers must be of sufficient width to provide a tight fit. In order to form a functional relationship between itself and the cavity surface, friction fixed barriers need to be of sufficient width to ensure that the required minimum compression is achieved.

#### **Cavity Ventilators/Weep Holes**

The type of weep hole/cavity ventilator will depend upon:

- The level of ventilation/drainage required, i.e. the anticipate level of moisture to be transferred through the external leaf.
- Depth of external leaf to be spanned.
- · Visual requirements, i.e. size of aperture and colour.

Note the provision and spacing requirements of cavity ventilators/weep holes differ between the Scottish and Northern Ireland Building Regulations and the English and Wales Regulations.

Where appropriate consideration should also be given to the provision of flood protection accessories and products.

#### Air Bricks/Grills

The type and size of air bricks/grills will be determined by:

- · Free air area required.
- Limits on unit size.
- Aesthetic requirements, i.e. colour, grill type.
- · Depth of external leaf.

Where appropriate consideration should also be given to the provision of flood protection accessories and products.

#### **Movement Joints**

Note: The location and spacing of movement joints within masonry construction is reviewed in Specright Guidance Note F10 Brick/Block Walling.

Movement joints comprise a foam strip and, depending upon the required level of performance and if the joint will remain visible in the final works, bond breaker tape and sealant.

The required level of performance required will depend on the characteristics of the masonry construction. Performance characteristics that need to be considered are:

- Width of movement joint and level of movement to be accommodated.
- Exposure, i.e. required resistance to driving rain.
- Fire, acoustic and air permeability performance of the masonry construction to be maintained.
- Resistance to UV (where joint will remain exposed).
- Compatibility of foam with sealant and both with adjacent surfaces should be confirmed.

#### Lintels

BS EN 845-2 sets out requirements for prefabricated lintels for spans over clear openings in a masonry wall up to a maximum of 4.5 m. Prefabricated lintels may be made using:

- · Steel (galvanised or stainless steel).
- Pre-cast concrete.
- Cast Stone.

Note BS EN 845-2 is not applicable for timber or natural stone lintels

Concrete lintels are classified as being either Composite or Non-composite. Composite lintels take advantage of the composite action of the concrete and brickwork together where they are

used in conjunction with 2 or more courses of brick/blockwork. Composite lintels are not designed to withstand directly imposed loads, i.e. wall plates, rafters, joists etc. Where the lintels are subject to directly imposed loads Non-composite lintels must be specified.

The level of performance required will depend on the characteristics of the masonry construction. Performance characteristics that need to be considered are:

- Type of masonry construction.
- · Wall dimensions, i.e. width of inner/outer leaf and cavity.
- Span.
- · Loads and method of distribution.
- Thermal performance
- Handling requirements, i.e. density and provision of handling reinforcement/fixings.
- · Minimum end bearing.

Where lintels are to remain visible in the final works additional considerations will comprise:

- Profile.
- Colour/material.
- Dimensional Tolerances.

Where cast stone lintels are utilised ensure that the correct mortar strength is specified and that issues associated within the differential movement of materials is considered and accommodated.

#### **Precast Sill Units**

BS EN 5642-1 sets out requirements for the specification of sills. Performance characteristics that need to be considered are:

- Wall dimensions, i.e. wide of inner/outer leaf and cavity.
- Profile.
- · Length.
- Dimensional Tolerances.
- Colour/material.
- Handling requirements, i.e. density and provision of handling reinforcement/fixings.

Where cast stone sill units are used the correct mortar strength must be specified and that issues associated within the differential movement of materials is considered and accommodated.

#### **Flue Lining Systems**

BS EN 15287+A1 provides detailed guidance on the design and installation of chimneys and relining of existing chimneys. The standard also lists/references British Standards relating to the requirements and methods of testing for different types of flue construction.

Flue lining systems may comprise metal pipe flues or be formed using special clay or concrete blocks and fire proof mortar. The lining systems must provide a continuous and unbroken flue from appliance to outlet that prevents flue gasses from escaping. The level of performance and configuration required will depend on the:

- Size of fireplace opening or type/rating of appliance the flue is to be connected to.
- Type of fuel (and associated temperature).
- Size, height and configuration of the chimney.

#### Metal Pipe Flues

Metal pipe flues are circular and can be sized according to specific requirements. Pipes can be made with either standard 316 grade stainless steel (suitable for most domestic applications) or 904 grade stainless steel (where heavy usage is anticipated). Pipes can be insulated (twin walled) or uninsulated and either rigid or flexible.

#### Clay and Concrete Flue Liners

Clay and concrete flue liner systems are sized according to the specific requirements of the project and comprise three principal components:

- Clay/concrete liners.
- Fire proof mortar.
- Insulating infill to fill any voids between flue liner and masonry.

#### Notice Plate/Chimney Plate

In accordance with the requirements of BS EN 15287+A1 and Building Regulations Approved Document J: Combustion Appliances and Fuel Storage Systems a Notice Plate/Chimney Plate must be provided in a designated location giving details of hearths and chimneys.

#### **Chimney Pots & Cowls**

The type and size of chimney pots/cowls will be determined by:

- Size of flue.
- Type of fuel.
- Method of fixing/substrate (mortar or mechanical).
- Aesthetic considerations.

Where appropriate consideration should also be given to the provision of protective accessories a, e.g. bird guards.

# **Specification Guidance**

### Form of Specification

The specification of masonry accessories and sundry items can be either performance based or prescriptive in nature. Performance based specifications can only be used where the Contract allows/requires the Contractor to undertake the design of part or all of the works.

This guide covers the prescriptive specification of accessories and sundry items for masonry only.

### Scope

The Scope provides a brief description of the works specified within the particular section and details any contractual matters that are relevant to them. Care should be taken to avoid repeating particulars already included within the Contract Preliminaries.

#### Scope of Specification

To help the reader quickly understand which elements of the works are covered in each Works Section it is useful to provide a brief description of items, e.g. accessories and sundry items to masonry walls.

#### Form of Specification

State whether the specification is performance based or prescriptive together with any specifically related contractual requirements or information that relate to the Works Section. Do not include any requirements or information already set out within the Contract Preliminaries.

Where the specification is prescriptive in nature requirements placed on the Contractor may include:

- The selection, supply and incorporation into the works of all listed accessories and sundry items in conjunction with Manufacturer's recommendations.
- The selection, supply and use of all minor items as recommended by the manufacturer for the installation of specified materials, products and systems.
- The preparation of fabrication drawings prior to ordering of materials to ensure the correct interpretation and, or, integrity of the prescribed design, e.g. membrane cloaking details around columns or fabrication details for pre-cast stone lintels/sills.

It is typical for the terms of a contract or the Contract Preliminaries to state that the Contractor may offer equivalent and, or, substitute products. Where this is not applicable to all Works Sections an appropriate statement must be provided.

#### **Execution of the Works**

Any general requirements or information specifically relating to the provision and use of masonry accessories and sundry items which are not contained within the Contract Preliminaries should be listed.

A list of all instructions, guidance and standards concerning handling, storage, installation and maintenance of materials that the Contractor is to comply with while executing the works must be given. This may include:

- Installation instructions and recommendations provided by the manufacturer(s) of specified masonry accessories and sundry items.
- British Standards, e.g. BS 8000-3: Workmanship on building sites. Code of practice for masonry, BS 8000-3: Workmanship on building sites. Code of practice for waterproofing and, or, NHBC Standards.
- Workmanship clauses provided within the Specification.

In some circumstances conflicts might exist between the requirements set out within the documents listed. A statement should be included that sets out which documents take precedence or confirms whether compliance with the most or least onerous condition is required.

### **Product**

Within prescriptive specifications the Contractor needs sufficient information to:

- Gain a clear and full understanding of the required works.
- · Price the works.
- Order all materials, products and systems required in the execution of the works.

The level and type of product information provided will vary depending on the scope of the project, the type of contract and the nature of the works.

The different types of accessories and sundry items that may be specified within this Works Section can be grouped by material/product type, e.g. Vapour Barrier.

#### **Product Details**

The level and type of information required to specify each accessory or sundry item will vary. Common information will include:

- Manufacturer: Name of manufacturer, website and telephone number.
- Reference: Product/system reference name and, or, code.

Additional information specific to each type of accessory should also be included and may comprise:

#### Membranes/Cavity Trays

Thickness/Gauge

#### Wall Ties/Restraint

- Length
- Spacing

#### Support Systems

- Fixing Method
- Brackets
- Angles/Plates
- Suspension Loops

#### **Cavity Closers**

· Cavity Width

#### Insulation

- Type
- Thickness

#### Weep Holes/Vents

- Colour
- Accessories

#### **Movement Joints**

- Type
- Sealant (Manufacturer, Reference, Classification).

#### Flue Systems

Notice Plate Location: e.g. next to electric consumer unit.

#### **Accessories/Related Components**

Where related components are needed and supplied by the same manufacturer it is recommended these items are specified as an additional item within the relevant product clause. For example anti-flood covers to air bricks or pipe sleeves for penetrations through membranes may be specified:

- Accessories: Airbrick Flood Defence Cover.
- Accessories: Rigid Preformed Pipe Sleeve (Top Hat) Units.

#### **Additional Information**

Additional descriptive or performance related information should be provided where it is felt that this will aid the Contractor in understanding the scope of works, how they are to be achieved and the required level of workmanship. Examples include:

- Location: Depending upon the scope and size of the project, it may be advantageous to indicate the location of specific items, e.g. below DPC level.
- Thermal Performance: Where Building Consent is to be obtained by the Contractor or the Contractor wishes to propose alternative materials/construction, it can be helpful to provide thermal performance information for specified insulation and cavity barriers/closers.

## Workmanship

Additional requirements relating to the installation of specified materials and products should be provided within Workmanship Clauses. Requirements typically relate to:

- Scope of works, e.g. frequency of movement joints.
- Additional design information, e.g. setting out information, joint widths, etc.
- Quality control, e.g. permissible tolerances, discarding noncompliant materials.
- · Method of working, e.g. sequencing or works.

In the majority of instances the instructions and guidance provided by the manufacturer and BS 8000 Part 3 will be sufficient to enable the Contractor to undertake the work to a high standard. Additional requirements can be listed that expand upon, alter, confirm or emphasise requirements already outlined within the reference documents (e.g. where work needs to be undertaken to an historic building in a particular manner).

Where workmanship clauses stipulate the method of working to be employed by the Contractor, check with the relevant Manufacturer that any instructions given will not reduce the performance of the material, product or system in question.

#### **Vapour Barrier**

To prevent the passage of warm moist air, vapour barriers must be free from tears and punctures and all joints/ends correctly sealed

State that the Contractor is to ensure that vapour barriers remain free from damage during completion of the surrounding works and provide any temporary protection necessary.

#### **Membranes**

Continuity of performance can be lost due to poorly formed joints, tears and punctures. To reduce the risk of failure instruct the Contractor to:

- Set out membranes in a manner that minimises the number and length of joints.
- Ensure joint surfaces are clean and in good condition.
- Form joints in accordance with the membrane manufacturers instructions using recommended jointing and sealing tapes.

Likewise around the perimeter of the membrane and penetrations, edges must be finished and sealed correctly. Instruct the Contractor to:

- Install Preformed Pipe Sleeve (Top Hat) Units so that damp proof and air tight seals between the themselves and penetrating elements area achieved, i.e. using jubilee clips.
- Form and seal cloakings around penetrations in accordance with cloak the membrane manufacturer recommendations.
- Not point over DPCs, use oversize DPC's to jambs and to ensure complete protection (to avoid the risk of damp ingress around the perimeter of the membrane).

#### **Cavity Trays**

Moisture present within cavities must be directed away from the inner leaf to avoid damp penetrating the building. Where cavity trays are used to direct moisture to the outer leaf, stop ends must be provided so that water does not run off the end of the cavity tray back into the cavity.

Where cavity trays are to be formed on site instruct the Contractor to ensure that all cavity trays are provided with stop ends.

#### **Wall Ties**

Elements bridging the cavity should be inclined towards the outer leaf so that moisture is directed away from the interior of the building.

Instruct the Contractor to lay wall ties so that they are inclined downwards towards the outer leaf, with water drips near to the centre of the cavity.

#### **Joint Reinforcement**

To achieve the required level of performance, reinforcement should be incorporated within masonry joints so that:

 Joints are lapped, with the position of laps staggered through the masonry panel.

- Laps are a minimum of 225mm in length (refer to manufacturer's recommendations).
- Laps are achieved by either stacking the product or positioning lengths side by side.
- Reinforcement is completely surrounded with mortar even when lapped.

Confirm setting out requirements for joint reinforcement together with any additional instructions, i.e. the use of preformed corner reinforcement elements.

#### **Masonry Support Systems**

Support systems must make allowance for design and construction tolerances including deflection and movement of masonry, supporting systems, structure and adjacent systems. Adequate provision must also be made for the settlement and deflection of the underside of the support system.

State specific requirements for the positioning of the underside of the support system, e.g. 2mm above the joint to allow for the support leg to settle when supporting the brickwork above.

#### Lintels

Lintels must be correctly laid with adequate bearing to either side of openings. Unless specified otherwise by the lintel manufacturer, lintels up to 3m in length should have a equal bearing of no less than 150mm. For longer lintels bearing requirements must be confirmed with the manufacturer or Structural Engineer.

Lintels must be level and bedded on mortar of sufficient thickness to accommodate any unevenness between the supporting leaves while maintaining the coursing of brick/blockwork.

Stipulate the required bearings where these differ from BS 8000 -3, i.e. where bearings greater than 150mm are required.

#### Insulation

To ensure moisture can not track from the external to internal leaves of a cavity partial fill insulation must be secure and not span the cavity. Equally continuity of insulation is important to ensure adequate thermal insulation is achieved and problems of cold bridging avoided.

State that insulation boards/batts/foil are to be securely fixed in place with proprietary insulation clips fixed to each wall tie and that insulation boards/batts must be tightly butted together.

#### **Cavity Closers/Barriers**

Cavity closers/barriers must be installed correctly so they provide adequate thermal insulation and protection against fire protection and the ingress of moisture.

Any gaps between the cavity closer/barrier and cavity faces will reduce the ability of the closer to act as a fire stop and risk the movement of the cavity closer either during or after construction.

Require that the Contractor ensures:

- All cavity closers fit snuggly within the cavity with no gap between cavity faces.
- Window and door frames are not to be fixed to cavity closers.
- Butt joints in vertical cavity closers are cut at an angle of 45 degrees towards the external face of the wall to shed any moisture in the cavity away from the inner leaf.

#### Weep Holes/Cavity Vents

The spacing of weep holes/cavity vents will vary depending upon the type of insulation used (i.e. partial or full fill); guidance provided by insulation manufacturers; relevant Building Regulations and where applicable NHBC Standards.

Within England and Wales weep holes should be provided to external walls:

- In external partial fill masonry cavity walls at no greater than 900mm centres above the cavity trays and between the damp proof course and any concrete infill at ground
- In external full fill masonry cavity walls at no greater than 450mm centres, or at centres advised by the insulation manufacturer.
- At least two weep holes are to be provided to external walls above cavity trays and lintels (450mm maximum centres).

Specify the provision and required spacing of weep holes and cavity vents. Highlight the need for the Contractor to ensure that weep holes/cavity vents do not become blocked with mortar or other debris either externally or internally within the cavity.

#### **Grills, Air Bricks & Sleeves**

So adequate ventilation is provide it is recommended that the Contractor is required to ensure joints between components are air tight, with no gaps and that all grills, vents, and sleeves are free of obstructions, debris and dirt.

#### **Movement Joint**

For the adequate adhesion of foam tape and sealant, joint faces must be dry and clean free from irregularities, loose materials, excess mortar and grease patches. Where surfaces are very porous check with the joint manufacturer to confirm if masonry surfaces need to be primed and, if so, the recommended primer.

Advise of the need to prepare surfaces appropriately and state the quality of finish to be achieved. For example:

- Joints recessed 2mm behind the plane of adjacent mortar.
- Sealant applied in a continuous even run to provide a uniform profile and achieve required fire, thermal, air leakage and acoustic performance.

Where appropriate highlight that joints should be continuous through any applied finishes, e.g. render/plaster or tiling.

#### **Pre-Cast Lintels, Sills & Copings**

With particular reference to units incorporated into facework. the Contractor must ensure that all units are free from chips, contamination, and cracks and are uniform in nature, colour and texture. Where appropriate protection should also be provided until all surrounding works are completed.

Due to the potential for differential settlement and movement within masonry. Instruct the Contractor to:

- Place sills on mortar bed at end stoolings only.
- Provide temporary support to remaining sill length with timber until mortar has set.
- Once the mortar has set remove timber support and point gap to match surrounding mortar joints.

#### **Flue Systems**

Flues systems must be installed in accordance with the manufacturer's recommendations and British Standards. Advise the Contractor of any specific requirements. These may include:

- Sequence of works, e.g. erect and test flue system prior to installation of roof and ceiling finishes.
- Method of support for unbonded flue blocks, e.g. use of starter, offset and transfer blocks.
- Coursing of flue blocks, e.g. to align with adjacent masonry.
- Quality of pointing to flue blocks, e.g. flush to ensure smooth unrestricted flueway.

### Samples, Tests, Certificates, etc

The following guidance should be read in conjunction with the guidance provided for Samples, Tests, Certificates, etc within Specright's Introduction to writing Architectural Specifications.

#### **Samples**

Where the specification is prescriptive in nature it is generally recommended that items are reviewed prior to writing the specification.

Where aesthetics are particularly important samples of products and other accessories may also be reviewed.

- Product Sample: Generally required where the specification is prescriptive in nature and the Specifier wishes to check the aesthetic quality of proposed items, e.g. colour of air bricks.
- Sample Panel: Accessories and sundry items may form part
  of masonry sample panels specified within Work Section
  F10. Reference the relevant clause and list accessories and
  sundry items to be incorporated in the sample panel.

#### **Flue Tests & Certificates**

Requirements concerning the testing and certification of flues are set out within Approved Document J: Combustion Appliances and Fuel Storage Systems, Appendix E.

Set out within an appropriate clause any additional requirements relating to the testing and inspection of flues, including:

- Timing of Tests: e.g. before the chimney structure is covered by finishes or adjacent works that may obscure the sight of smoke leakage during testing.
- Witnessing of Tests: e.g. provide notice of at least 5 working days before undertaking the smoke test.
- Reporting: e.g. Retain on site for inspection, or, submit to Employers Agent certificates.

# **British Standards**

#### **General Workmanship**

BS 8000-3 Workmanship on building sites. Code of practice for masonry BS 8000-4 Workmanship on building sites. Code of practice for waterproofing

PD 6697 Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2

#### **Damp-proof Membranes**

BS 8215 Code of practice for design and installation of damp-proof courses in masonry construction

#### Chimneys

BS EN 15287-1+A1 Chimneys. Design, installation and commissioning of chimneys. Chimneys for non-room sealed heating appliances

#### Lintels

BS EN 845-2 Specification for ancillary components for masonry. Lintels

#### **Precast Sills**

BS EN 5642-1 Sills & Copings: Specification for windows sills of precast concrete, cast stone, clayware, slate and natural stone.

#### **Useful References**

Building Regulations: Approved Document C - Site preparation and resistance to contaminates and moisture Scottish Building Standards: Technical Handbook - Domestic & Non Domestic Section 3 Environment 2011

The BASA Guide to the ISO 11600 Classification of Sealants for Building Construction (http://www.basaonline.org/uploads/files/BFR57623BASAGuidetoISO11600(1).pdf)

To access all the latest Specright Specification Guides and keep informed of updates subscribe to our e-newsletter www.specright.co.uk/guidepdfs								
ecright's Specification Guides are intended to provide the reader with an overview of some of the topics that are pertinent to e relevant CAWS Subsection or Clause. They are not intended to comprise a full and comprehensive guide to all matters. It mains the reader's responsibility to ensure that the specification complies with the statutory requirements, British Standards urrent best practice and manufacturer's instructions, requirements and recommendations for all aspects relating to design, handling, installation, operation, maintenance and removal.	t							