

Workmanship on building sites —

Part 4: Code of practice for waterproofing

CAWS J20, J21, J30, J40, J41

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- Building Employers' Confederation
- Chartered Institute of Building
- Consumer Policy Committee of BSI
- Department of the Environment (Building Research Establishment)
- Department of the Environment (Property Services Agency)
- Federation of Associations of Specialists and Sub-Contractors
- Institute of Clerks of Works of Great Britain Inc
- Institution of Civil Engineers
- Institution of Structural Engineers
- National Building Specification Ltd.
- National Council of Building Materials Producers
- National House Building Council
- Royal Institute of British Architects
- Royal Institution of Chartered Surveyors
- Society of Chief Architects of Local Authorities

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
Section 1. General	
1.1 Scope	1
1.2 References	1
1.3 Definitions	1
Section 2. Materials handling and preparation	
2.1 Checking, handling and site storage of materials and components	2
2.2 Preparation of work, materials and components	2
Section 3. Applying and laying tanking, damp-proofing and roofing	
3.1 Applying tanking and damp-proofing	4
3.2 Roofing: preparatory works for insulation and vapour control layers	4
3.3 Mastic asphalt tanking and roofing	7
3.4 Damp-proofing near ground level	9
3.5 Bitumen sheet tanking and built up bituminous roofing	12
3.6 Surface protection for built up roofing and asphalt	14
Index	16
Figure 1 — Typical internal and external tanking installations	5
Figure 2 — Paving grade asphalt upstand junction	8
Figure 3 — Alternative methods of upstand support	8
Figure 4 — Typical lead apron	9
Figure 5 — Typical asphalt apron	10
Figure 6 — Typical verge and check kerb treatments	10
Figure 7 — Double welted joint of polyethylene damp-proof membrane (DPM)	11
Figure 8 — Typical welted drip	13
Figure 9 — Typical profile of verge and check kerb	14
Figure 10 — Typical profile of verge and kerb with aluminium trim	14
Figure 11 — Seal to cold pipe	15
List of references	18

Foreword

This Part of BS 8000 has been prepared under the direction of the Council for Building and Civil Engineering. It makes recommendations and gives guidance on basic workmanship for conventional types of building work.

The recommendations given are not necessarily comprehensive; particular project documents, e.g. project specifications, may need to cover particular recommendations not dealt with by this code of practice.

This code of practice is unique in that unlike other British Standards, it draws together recommendations given in other codes of practice.

The purpose of this code of practice is to encourage good workmanship by providing the following:

- a) the most frequently required recommendations on workmanship for building work in a readily available and convenient form to those working on site;
- b) assistance in the efficient preparation and administration of contracts;
- c) recommendations on how designers' requirements for workmanship may be satisfactorily realized;
- d) definitions of good practice on building sites for supervision and for training purposes; this guidance is not intended to supplant the normal training in craft skills;
- e) a reference for quality of workmanship on building sites.

It is recognized that design, procurement and project information should be conducive to good workmanship on site.

During the preparation of this code of practice the Building Industry's Co-ordinating Committee for Project Information (CCPI), produced a Common Arrangement of Work Sections (CAWS) for building work. This code of practice has generally been arranged in accordance with the Common Arrangement so that it can be used easily with project specifications and bills of quantities using this arrangement. Other major documents are being restructured in accordance with the Common Arrangement.

NOTE The CCPI was sponsored by the Association of Consulting Engineers, the Building Employers' Confederation, the Royal Institution of Chartered Surveyors and the Royal Institute of British Architects.

When complete BS 8000 will comprise the following Parts.

- *Part 1: Code of practice for excavation and filling;*
- *Part 2: Code of practice for concrete work;*
- *Part 3: Code of practice for masonry;*
- *Part 4: Code of practice for waterproofing;*
- *Part 5: Code of practice for carpentry, joinery and general fixings;*
- *Part 6: Code of practice for roof, slate, tile covering and cladding;*
- *Part 7: Code of practice for glazing;*
- *Part 8: Code of practice for plasterboard partitions and dry linings;*
- *Part 9: Code of practice for cement/sand floor screeds and concrete floor toppings;*
- *Part 10: Code of practice for plastering and rendering;*
- *Part 11: Code of practice for wall and floor tiling;*
- *Part 12: Code of practice for decorative wallcoverings and painting;*

- *Part 13: Code of practice for above ground drainage and sanitary appliances;*
- *Part 14: Code of practice for below ground drainage;*
- *Part 15: Code of practice for hot and cold water services (domestic scale).*

Technical Committees CSB/55, Waterproofing structures below ground level, ECB/44, Damp proof courses, and ECB/7, Flat roofs have also participated in the preparation of this Part of BS 8000 of which the content is based on and consistent with that of CP 102, CP 144-3 and CP 144-4. However, CP 102, CP 144-3 and CP 144-4 cover the subject matter more comprehensively and include design, materials and other related aspects in addition to workmanship on site.

The text of this Part of BS 8000 includes commentaries and figures. These commentaries are separately identified and are intended to be for guidance only and do not form part of the recommendations. They refer, unless otherwise stated, to the clause which immediately precedes each commentary.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the EN title page, pages 1 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General

1.1 Scope

This Part of BS 8000 gives recommendations on basic workmanship on building sites and covers those tasks which are frequently carried out in relation to waterproofing.

For design aspects of waterproofing reference should be made to CP 102 and CP 144-3 and CP 144-4.

NOTE This code of practice includes supplementary elements in the form of commentaries to assist in its use and understanding. Compliance with the commentaries is not necessary in order to be able to claim conformity with the standard.

1.2 References

1.2.1 Normative references

This Part of BS 8000 incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this Part of BS 8000 only when incorporated in it by amendment or revision.

1.2.2 Informative references

This Part of BS 8000 refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

1.3 Definitions

For the purposes of this Part of BS 8000, the definitions given in BS 6100-1.3.1:1987, BS 6100-1.3.2:1985, BS 6100-1.3.3:1987, BS 6100-2.2.2¹⁾, BS 6229:1982, CP 144-3:1970 and CP 144-4:1970 apply.

¹⁾ In preparation

Section 2. Materials handling and preparation

2.1 Checking, handling and site storage of materials and components

2.1.1 Checking

Check delivery tickets and certificates against the specification. Examine marks and labels and the condition of materials and components. If necessary refer to the supplier immediately and do not use the materials or components until the position is clarified.

COMMENTARY. Mastic asphalts for tanking and damp-proof coursing (see BS 6925 and BS 6577), roofing (see BS 6577 and BS 6925) and paving (see BS 1446 and BS 1447) can be identified by the manufacturer's mark or name and the British Standard (BS) number of the asphalt blocks delivered to site.

Rolls of bituminous sheeting for tanking and damp-proof courses (see BS 6398) and bituminous roofing felts (see BS 747) can be identified by the BS number and classification, i.e. A to G, on the roll wrapping.

All other materials covered by a British Standard can be identified by the BS number.

All other proprietary materials not covered by current British Standards material specifications should be identified by the manufacturer's labelling on the products delivered.

A number of tanking membrane and roofing membrane materials not covered by a British Standard are available. In sheet form these are likely to be high performance membranes of bitumen, bitumen polymers or pitch polymers for bonding in hot bitumen or laminates of plastics sheets and self adhesive bitumen, coal tar or pitch and polymeric materials for application of brush, trowel or airless spray.

2.1.2 Handling and site storage

2.1.2.1 Handling. Handle all materials and components with care and avoid damage, soiling or contamination.

2.1.2.2 Storage

- a) Board materials under cover; support them so as to avoid distortion and protect them against wetting, mechanical damage and contamination.
- b) Store rolls of bituminous felt carefully on end on a clean, level surface and protect them against wetting. Store rolls of other proprietary materials similarly unless the manufacturer's sitework instructions specify otherwise.
- c) Store asphalt and bitumen blocks separately on a clean base and separated into their various grades.

d) Store chippings and aggregates on a clean, dry base avoiding contamination with other materials and separated according to type and size.

e) Stack pavings and tiles neatly on clean ground or on supports protected from contamination from the earth and from splashing.

f) Store accessories, e.g. paint, trim and expanded metal, under cover and protected from mechanical damage and contamination.

g) Store sealants, primers, liquid solutions and other similar materials under cover and protected from frost. Read and comply with any other particular instructions on labels concerning storage.

COMMENTARY. Some roll materials are vulnerable to damage at low temperatures.

2.2 Preparation of work, materials and components

2.2.1 General

2.2.1.1 Liaison. Liaise and agree the timing and sequence of work. Agree requirements for and provision of sufficient working space, plant, hoisting facilities, materials, access, safety, dewatering, if required, and protection.

Ensure that necessary work by other contractors is or will be sufficiently complete and will not delay the continuity of work or leave uncompleted work vulnerable to inclement weather and damage.

2.2.1.2 Acceptability of substrates. Before commencing applying waterproofing membranes or roofing, check that for the particular application the following apply.

- a) Substrates are sufficiently smooth and even textured.
- b) Substrates are free from frost, sufficiently dry, clean and not contaminated with oil or other deleterious materials.
- c) For waterproofing membranes the construction permits effective continuity of the membrane. Ensure that surfaces which join vertical and horizontal construction allow for practical lapping and jointing of membranes. Before general laying commences check that any chases required have been cut and service penetrations have been prepared.