

Specification for

Paper and cork/paper jointing

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The preparation of this British Standard was entrusted by the Piping Systems Components Standards Policy Committee (PSE/-) to Technical Committee PSE/2, upon which the following bodies were represented:

- Asbestos Information Centre Ltd.
- British Adhesives and Sealants Association
- British Gas plc
- British Pump Manufacturers' Association
- British Railways Board
- Energy Industries Council
- Engineering Equipment and Materials Users' Association
- Institution of Gas Engineers
- Liquefied Petroleum Gas Industry Technical Association (UK)
- Paintmakers' Association of Great Britain Ltd.
- Water Authorities' Association

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Foreword

This British Standard has been prepared under the direction of the Piping Systems Components Standards Policy Committee. It is a combined revision of BS 4249:1967 and BS 4243:1967, which are withdrawn. To conform with current practice, the grades of jointing have been deleted so that only two types of jointing are included, one for each material, and all imperial quantities have been deleted. This standard is one of a group of standards that specify the following materials and compounds and that are being reviewed:

- compressed asbestos fibre jointing
- vulcanized fibre sheets
- flexible vulcanized fibre sheets
- composition cork jointing
- paper and cork/paper jointing
- rubber reinforced jointing
- corrugated metal joint rings
- jointing compounds for use with water, 1st and 2nd family gases
- jointing material for 3rd family gases
- anaerobic jointing compounds for use in appliances
- using 1st, 2nd and 3rd family gases.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, 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.

1 Scope

This British Standard specifies requirements for the materials and manufacture, thickness and mechanical and physical properties of a paper based type of jointing and for a cork and paper based type of jointing.

Appendix A gives information to be supplied by the purchaser.

NOTE 1 Type 1 and type 2 jointings are not suitable for use with potable water.

NOTE 2 The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purpose of this British Standard the following definitions apply.

2.1 jointing

a manufactured solid material supplied in sheets, from which required shapes can be cut, or in preformed shapes used for the purpose of sealing mating faces of components from the ingress or egress of fluids

2.2 batch

that length of jointing all of one grade produced in one manufacturing run in units of a maximum of 5 t

2.3 jig yield

the deflection of the apparatus in Appendix F caused by the increase from a preload to a major load

3 Types and composition

3.1 Types

Jointing shall be one of the following types.

- a) *Type 1*. A compressible paper based jointing from which gaskets can be cut or stamped.

NOTE 1 This type of jointing is described as paper jointing.

- b) *Type 2*. A compressible jointing composed of an intimate mixture of cork granules and cellulose fibres from which gaskets can be cut or stamped.

NOTE 2 This type of jointing is described as cork/paper jointing.

NOTE 3 Both types of jointing are suitable for use at temperatures not exceeding 120 °C in systems involving contact with mineral or diester type lubricating oil, mineral oil type hydraulic fluid and petroleum fuel. They are not recommended for use with water based fluids.

Type 1 and type 2 jointings shall not be used with potable water.

3.2 Composition

3.2.1 Type 1 (paper jointing). Type 1 (paper jointing) shall consist of one or more plies of paper, made from wood pulp free from mechanical wood, impregnated with plasticized gelatine, which is subsequently rendered insoluble. At some stage during manufacture, a fungicide shall be incorporated to render the finished material resistant to mould growth.

NOTE The purchaser should inform the manufacturer if he wishes to be notified of the composition of the fungicide in order to approve it.

3.2.2 Type 2 (cork/paper jointing). Type 2 (cork/paper jointing) shall consist of one or more plies of paper made from cork and wood pulp free from mechanical wood, impregnated with plasticized gelatine, which is subsequently rendered insoluble.

4 Thickness

4.1 Type 1 jointing

The nominal thickness of type 1 jointing shall be as given in Table 1.

Table 1 — Nominal thickness and tolerance of type 1 jointing

Nominal thickness	Tolerance
mm	mm
0.15	+ 0.05 – 0.02
0.25	+ 0.08
0.40	– 0.02
0.50	
0.8	+ 0.18
1.6	– 0.08
3.2	± 0.25

The thickness determined in accordance with Appendix B at any point across any width along a length of jointing shall be as given in Table 1.

4.2 Type 2 jointing

The nominal thickness of type 2 jointing shall be as given in Table 2.

Table 2 — Nominal thickness and tolerance of type 2 jointing

Nominal thickness	Tolerance
mm	mm
0.4	+ 0.08 – 0.02
0.8	+ 0.18
1.6	– 0.08
3.2	± 0.25