

Jointing materials and compounds —

Part 1: Specification for corrugated metal joint rings

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Committees responsible for this British Standard

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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

This British Standard, having been prepared under the direction of the Piping Systems Components Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 November 1988

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Foreword

This Part of BS 6956 has been prepared under the direction of the Piping Systems Components Standards Committee. It constitutes a revision of section 4 of BS 5292:1980, which has been deleted by amendment. The technical content of the section has not been amended but lead has been deleted as a material specified by the section. This standard is one of a group of standards specifying the following materials and compounds: 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.

Appendix A lists information which should be supplied by the purchaser.

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 and ii, pages 1 to 4, 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 Part of BS 6956 specifies requirements for corrugated metal joint rings when used for sealing mechanical joints in piping systems carrying 1st, 2nd and 3rd family gases, water or steam.

Appendix A lists information to be supplied by the purchaser.

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

2 Definitions

For the purposes of this Part of BS 6956 the following definitions apply.

2.1

batch

a number of corrugated metal joint rings which have been manufactured from the same material from a single delivery of material and which are all of the same thickness

2.2

corrugated metal joint ring

a gasket of circular, rectangular, or lobed outline manufactured with a series of continuous corrugations from sheet metal and used for the purpose of sealing mating faces of components from the ingress or egress of fluids

3 Manufacture

Each batch shall be manufactured from a sheet or sheets from a single delivery of material. Where the available sheet size permits, a batch shall be manufactured from a single sheet.

4 Thickness

The thickness of the metal from which joint rings are made shall be as given in Table 1.

Table 1 — Thickness of metal

Metal	Thickness
	mm
Brass	0.19 up to and including 0.40
Copper-nickel alloy	0.25 up to and including 0.46
Stainless steel	0.31 up to and including 0.46

5 Materials

Materials shall be selected from Table 2 in a cold rolled condition and in a grade specified in the relevant British Standard to suit the medium with which it is used.

Table 2 — Materials for corrugated metal joint rings

Medium	Material	Relevant British Standard
1st, 2nd and 3rd family gases	Brass Copper	BS 2870 } Any BS 2870 } grade
Water	80/20 Copper-nickel alloy designation CN 104	BS 2870
Steam	80/20 Copper-nickel alloy designation CN 104	BS 2870
	Stainless steel grades 301S21 304S15 304S31	BS 1449-2

6 Corrugations

Each corrugation shall be concentric for circular joint rings, and follow the periphery of the joint for non-circular joint rings. The pitch and depth of the corrugations shall be in accordance with Table 3.

Table 3 — Pitch and depth of corrugations

Effective width of joint	Pitch of corrugation	Maximum depth of corrugation
mm	mm	mm
Up to and including 9.5	1.6	0.64
Over 9.5 up to and including 19	3.2	1.27
Over 19	4.8 6.4	1.9

7 Testing

7.1 General

If the purchaser requests a cracking test (see Appendix A), the test piece shall be free from cracks after the release of the compressive force when the test procedure given in 7.2 is carried out.

7.2 Procedure

Take from each batch a test piece which is a square approximately 75 mm × 75 mm cut from a ring, or a complete ring. Place the test piece between two flat rigid pieces of metal having smooth faces and flatten using an even application of a compressive force. Then release the compressive force.

Appendix A Information to be supplied by the purchaser

The purchaser should supply the following information in his enquiry and order to the manufacturer:

- a) the number of this British Standard, i.e. BS 6956-1;
- b) thickness (see clause 4);
- c) material (see clause 5);
- d) whether testing is required (see clause 7);
- e) flange specification and details;
- f) any special requirements.

Publications referred to

BS 1449, *Steel plate, sheet and strip.*

BS 1449-2, *Specification for stainless and heat-resisting steel plate, sheet and strip.*

BS 2870, *Specification for rolled copper and copper alloys: sheet, strip and foil.*

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