

Mechanical cable glands —

Part 2: Specification for polymeric glands

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- Association of Manufacturers of Domestic Electrical Appliances
- British Approvals Service for Electric Cables
- British Cable Makers' Confederation
- British Plastics Federation
- British Railways Board
- British Shipbuilders
- British Steel Industry
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- Department of Energy (Electricity Division)
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- Electricity Supply Industry in England and Wales
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- Association of Supervisory and Executive Engineers
- Electrical, Electronic, Telecommunications and Plumbing Union
- Electrical Installation Equipment Manufacturers' Association (BEAMA Ltd.)
- Engineering Industries Association
- Gland Manufacturers' Technical Committee
- Health and Safety Executive
- Lighting Industry Federation Ltd.

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Foreword

This Part of BS 6121 has been prepared under the direction of the General Electrotechnical Engineering Standards Policy Committee.

BS 6121-1 gives requirements and tests for metallic cable glands.

This Part of BS 6121 specifies a range of polymeric cable glands dimensionally standardized to a sufficient extent to ensure the interchangeability of glands of similar type and size made by different manufacturers. It provides for mechanical glands with International Organization for Standardization (ISO) metric threads as specified in BS 3643 on the threaded fixing component, such as are used with elastomer-insulated and PVC-insulated cables. Thread forms based on other International Standards are accepted. To avoid restricting development, only dimensions essential to interchangeability of the whole gland are specified, and no attempt has been made to secure interchangeability of components and cable cutting dimensions between different makes.

It is intended to publish two further Parts to BS 6121-3 will be a specification for composite glands manufactured from a combination of both metallic and polymeric components; and Part 4 will provide a code of practice for all types of mechanical cable glands specified in Parts 1, 2 and 3.

Attention is drawn to Appendix A, which lists the information to be supplied by the purchaser when ordering the glands.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, 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 6121 specifies requirements for limiting dimensions, marking, materials, construction and type tests for type A polymeric mechanical cable glands. It provides for interchangeability between complete glands of different makes, but not between component parts.

The glands are suitable for use with unarmoured cables complying with the following British Standards, but the range of glands specified does not completely cover all the cables included in these standards.

BS 6004, Specification for PVC-insulated cables (non-armoured) for electric power and lighting.

BS 6007, Specification for rubber-insulated cables for electric power and lighting.

BS 6346, Specification for PVC-insulated cables for electricity supply.

BS 6500, Specification for insulated flexible cords and cables.

The glands are also suitable for use with certain cables of generally similar type not included in these British Standards.

No provision is included for making electrical connections to the gland.

NOTE 1 The information to be supplied by the purchaser when ordering is given in Appendix A.

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

2 Definitions

NOTE See Figure 1.

For the purposes of this Part of BS 6121, the definitions given in BS 4727-2:Group 08 apply, together with the following.

2.1

polymeric cable gland

a device manufactured in polymeric material designed to attach and secure the end of an unarmoured cable to the equipment by means suitable for the type and description of cable for which it is designed

NOTE These glands may also be used for securing and/or sealing cables passing through either bulkheads or gland plates.

2.2

mechanical cable gland

a cable gland in which the cable is secured

2.3

sealed gland

a gland having a seal so constructed as to exclude dust and water under the conditions prescribed in Appendix E (IP66 test)

2.4

threaded fixing component

the part of a cable gland designed for attaching it to the casing of the apparatus to which the cable is to be connected. It is provided with an external thread which either engages in a similarly threaded hole in the casing of the apparatus, or is inserted through a plain hole in the casing and secured by means of a locknut inside the casing

2.5

outer sheath of a cable

a polymeric layer applied to the outside of a cable

2.6

protrusion

the distance which the gland protrudes outside the apparatus casing when the gland is assembled with the largest cable for which it is designed, and with the seal compression nut tightened to the proof torque specified in the appropriate table

3 Types of gland

The basic designations of the glands are as follows.

Type A1P. For unarmoured cable with a polymeric outer sheath, where the function of the gland is to secure the outer sheath of the cable.

Type A2P. As type A1, but with an IP66 seal between the outer sheath and gland.

4 Sizes of gland

The size designations, of which there are 10, and the range of sizes for each type are shown in Table 1, the suffix "S" denoting smaller bore.

5 Marking

An appropriate part of the gland shall be legibly and permanently marked with the following particulars:

- the manufacturer's identification, e.g. name or trade mark;
- the size designation of the gland (see clause 4);
- whenever possible, the type of the gland.

All identification labels used for packaging shall carry the number of this British Standard, i.e. BS 6121-2¹⁾.

¹⁾ Marking BS 6121-2 on or in relation to a product represents a manufacturer's declaration of conformity, i.e. a claim by or on behalf of the manufacturer that the product meets the requirements of the standard. The accuracy of the claim is therefore solely the responsibility of the person making the claim. Such a declaration is not to be confused with third party certification of conformity, which may also be desirable.