British Standard

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10 February 2004

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BRITISH STANDARD

BS 6121-2: 1989

Mechanical cable glands —

Part 2: Specification for polymeric glands

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UDC 621.315.687.6:621.643.414:678.7.077-762.44

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the General Electrotechnical Engineering Standards Policy Committee (GEL/-) to Technical Committee GEL/3, upon which the following bodies were represented:

Aluminium Federation
Association of Consulting Engineers
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
British Telecommunications plc
Department of Energy (Electricity Division)
Department of the Environment (Property Services Agency)
Department of Trade and Industry (Consumer Safety Unit, CA Division)
Electricity Supply Industry in England and Wales
Engineering Equipment and Materials Users' Association
ERA Technology Ltd.
Institution of Electrical Engineers
London Regional Transport

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

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.

This British Standard, having been prepared under the direction of the General Electrotechnical Engineering Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 August 1989

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The following BSI references relate to the work on this standard:
Committee reference GEL/3
Draft for comment 87/30058 DC

ISBN 0 580 17247 3

Amendments issued since publication

Amd. No.	Date	Comments

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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.

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 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.

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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:

a) the manufacturer's identification, e.g. name or trade mark;

b) the size designation of the gland (see clause **4**);

c) whenever possible, the type of the gland.

All identification labels used for packaging shall carry the number of this British Standard, i.e. BS 6121-2[1)].

[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.

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Table 1 — Glands for unarmoured cables

Size designation	10	12	16[a]	20S[b]	20[b]	25	32	40	50S	50
Thread size × 1.5p – 8g, mm	M10[c]	M12	M16	M20	M20	M25	M32	M40	M50	M50
Minimum length of thread on threaded fixing component, mm	10	10	10	10	10	10	10	15	15	15
Minimum bore (threaded fixing component), mm	5.0	6.5	8.5	10.5	13.5	18.3	25.3	32.0	38.0	44.0
Maximum protrusion from mounting face, mm	20	20	25	25	30	30	35	40	50	50
Gland maximum diameter, mm	19	19	26	32	38	51	55	70	97	97
Maximum diameter of cable, mm	4.0	6.0	8.0	10.0	13.2	18.0	25.0	31.5	37.0	43.0
Proof torque, N·m	5	5	7	10	10	15	25	30	45	45
Diameter of test mandrel[d] and minimum diameter of cable clamp/outer seal, mm	1.5	2.5	4.0	7.5	9.5	13.0	17.5	24.5	31.0	36.5
Load test load, N	20	20	20	20	8	30	35	40	45	50
Radial lead test torque, N·m	30	30	30	30	30	30	40	90	120	120

[a] This size gland is available with a M20 entry thread (designated 16/20).
[b] This size gland is available with a M25 entry thread (designated 20/25).
[c] Pitch 1.0 for M10 thread.
[d] Subject to tolerances of + 0.5 mm for glands of all sizes.

Where printing is used for marking the gland, the permanency of identification shall be checked by inspection and by rubbing the mark by hand for 15 s with a piece of cloth soaked with water and again for 15 s with a piece of cloth soaked with petroleum spirit.

6 Materials and construction

(see Figure 1)

6.1 Materials

All parts of the gland shall be made of a polymeric material except the skid washer which shall be made of metallic, polymeric or fibrous material. No restriction is placed on the kind of polymer used, provided that the gland is capable of meeting the requirements of this standard.

NOTE Attention is drawn to the fact that no polymeric material is completely resistant to solvents, oil and greases.

6.2 Construction

6.2.1 *General.* Those parts of the gland that have to be tightened or held during installation shall be hexagonal or have hexagons formed on them.

All externally projecting edges and corners of gland components shall be rounded or chamfered to reduce the danger of injury in handling or after installation.

Each gland shall be capable of being attached to the appropriate apparatus through a single clearance or threaded circular hole of the appropriate diameter.

The use of skid washers is permitted.

The face of the gland which is to be clamped against the apparatus casing shall be machined normally to the axis of the gland.

NOTE A locknut is not normally regarded as part of a cable gland. When locknuts are supplied the combined gland and locknut assembly should comply with this Part of BS 6121.

6.2.2 *Sealing devices.* Sealing devices shall consist of an elastomeric compound complying with **8.5**. When used with a gland and cable of the appropriate size, the sealing device shall not damage the insulation or sheath of the cable.

7 Dimensions

7.1 Threaded fixing component

7.1.1 *Thread.* The thread on the threaded fixing component shall be the ISO metric thread in accordance with BS 3643 for all sizes of gland, but other forms complying with national or international standards (e.g. DIN 40 430[2)], Fed – Std H.28[2)]) are permissible provided the glands meet all the other requirements of this standard.

The nominal size of the thread shall be one of the values given in Table 1.

[2)] Available from BSI Sales Department, BSI, Linford Wood, Milton Keynes MK 14 6LE.

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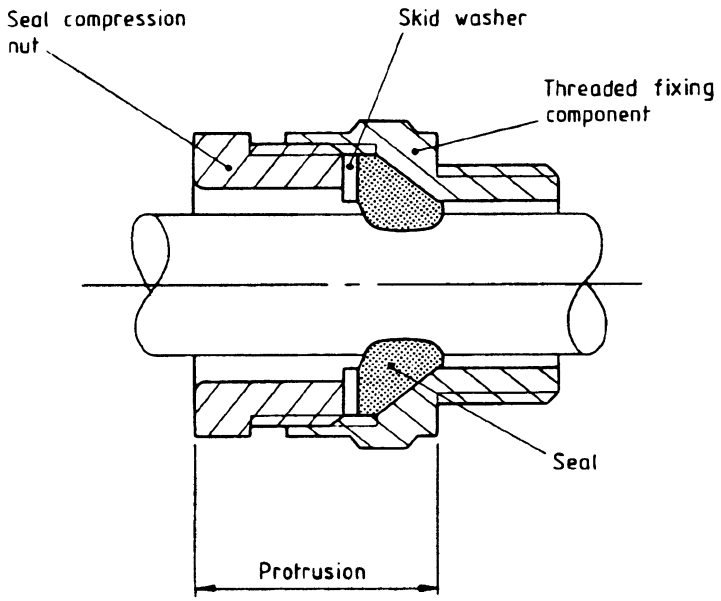

NOTE This figure illustrates the terms used in this standard and does not represent an actual design of gland.

Figure 1 — General construction of polymeric cable gland

7.1.2 *Length.* The length of thread from the face of the gland on the threaded fixing component shall be not less than the appropriate value given in Table 1.

7.2 Minimum bore

The minimum bore diameter of the threaded fixing component shall be in accordance with Table 1. A plug-gauge of a size not less than the maximum diameter of the cable shall pass through the gland with the seal uncompressed.

7.3 Protrusion

The protrusion from the mounting surface shall not exceed the appropriate maximum value given in Table 1, when the cable gland is assembled on the plug-gauge or a mandrel of the same diameter as the maximum cable size and the threaded fixing component is tightened to the proof torque.

7.4 Gland maximum diameter across corners

The diameter of an imaginary cylinder, coaxial with the gland and enclosing it, shall not exceed the appropriate maximum value given in Table 1.

7.5 Dimensions across flats of hexagons

Every hexagonal part shall fit one of the spanners listed in BS 192.

7.6 Cable overall diameter

The gland shall be capable of accommodating cable of the appropriate maximum overall diameter as shown in Table 1.

8 Type tests

8.1 General

No gland shall be adjusted during the test.

NOTE The type tests are for proving the design.

8.2 Temperature conditioning

Prior to proceeding with the tests detailed in **8.3** to **8.6**, a quantity of glands of each size and type sufficient to meet the test series shall be subjected to temperature conditioning as described in Appendix B.

NOTE Temperature conditioning considerably reduces the water absorption characteristics of the specimen, and produces a proof condition for the tests specified in this standard.

The tests specified in **8.3** to **8.6** shall be carried out within 48 h of this temperature conditioning.

8.3 Proof torque test

8.3.1 *General.* The proof torque test is in two parts: specimens of both types of gland shall undergo testing at an ambient temperature of 23 ± 5 °C and, subsequently, at a temperature of – 5 °C.

NOTE 1 Any distortion of the seals can be ignored for the purpose of this test.

NOTE 2 This test is designed to prove that the mechanical strength of the gland is adequate to meet conditions encountered in use.

8.3.2 *At ambient temperature.* There shall be no damage to the threads and no detrimental effect to the hexagon on dismantling after the gland has been tested as described in Appendix C.

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8.3.3 *At low temperature.* There shall be no damage to the threads and no detrimental effect to the hexagon on dismantling after the gland has been tested as described in Appendix C at a temperature of – 5 °C.

8.4 Load test

Both types of gland shall undergo this test.

The distance through which the mandrel moves shall not exceed 6 mm when the gland has been tested as described in Appendix D.

NOTE This test is intended to ensure that the gland will secure the cable effectively, not to demonstrate that the gland will sustain a load of the test value.

8.5 Tests on sealing devices

8.5.1 *Seal test.* Prepare and test gland type A2P in accordance with Appendix E, and BS 5490 or BS 5420 for IP66 degree of protection.

The requirements for IP66 in BS 5490 or BS 5420 shall be met for seal. When tested in accordance with **8.9** of BS 5490:1977, there shall be no ingress of water.

8.5.2 *Compression set.* When tested in accordance with BS 903-A6, using a method A, type 1 test piece, a temperature of 70 ± 1 °C during the compression period, and a recovery period of 10 min, the compression set shall be not greater than 25 %.

8.5.3 *Hardness.* The change in hardness between the values obtained before and after accelerated ageing shall be not greater than 15 % when conditioned and tested as follows.

Age the material under test in an oven with air circulation such that the test pieces are heated for 7 days at 100 ± 2 °C. Prepare the test pieces in accordance with BS 903-A26.

Condition the aged pieces at 20 ± 2 °C for 24 h and test in accordance with BS 903-A26.

8.6 Radial load torque test

There shall be no damage to the gland on dismantling after the gland has been tested as described in Appendix F.

8.7 Endurance test

NOTE 1 This test is intended to provide an indication of minimum service life of a cable gland when subjected to normal oxidative degradation in the presence of ultraviolet radiation and humidity.

8.7.1 *General.* The glands shall be considered satisfactory if, after ageing as described in **G.2**, all samples comply with **8.7.2** to **8.7.4**.

8.7.2 *Proof torque.* The gland shall withstand the appropriate proof torque given in Table 1 and shall meet the requirements given in **8.3**.

8.7.3 *Load.* The gland shall meet the requirements given in **8.4**.

8.7.4 *Radial load torque.* The gland shall meet the requirements given in **8.6**.

NOTE 2 The endurance test is not intended to reflect the reduction in working life resulting from environmental pollution by atmospheric chemicals.

8.8 Flammability test

NOTE 1 This test is intended solely to measure and describe the flammability properties of the material used in the cable gland in response to heat and flame under controlled laboratory conditions.

When a set of five specimens of each size is prepared, conditioned and flame tested as described in Appendix H, the material shall not:

a) burn with flaming combustion for more than 30 s after either application of the test flame;

b) have a total flaming combustion time exceeding 250 s for the 10 flame applications for each set of five specimens;

c) have any specimens that burn with flaming or glowing combustion up to the holding clamp.

NOTE 2 Specimens are permitted to drip flaming particles which burn only briefly.

If only one specimen from a set of five specimens fails to comply with these requirements, or if the total number of seconds of flaming is in the range of 251 s to 255 s, an additional five specimens shall be tested, and all specimens from this second set of tests shall comply with a) to c).

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Appendix A Information to be supplied when ordering

When ordering, purchasers should give the following information:

a) the number of this British Standard, i.e. BS 6121-2;

b) the type and size of gland (see clauses **3** and **4**);

c) the number of the British Standard cable specification, if applicable;

d) the type, size and voltage rating of the cable;

e) the actual diameter of the cable;

f) details of any special environmental conditions, including enclosure material;

g) whether a size 16 gland with M20 thread is acceptable, or a size 20S or 20 gland with M25 thread is acceptable.

Appendix B Temperature conditioning for tests

Place all the glands in an oven and maintain at 120 ± 2 °C for 2 h. Remove and allow to cool to room temperature.

NOTE Remove seal and skid washer, if present, prior to temperature conditioning.

Appendix C Proof torque test

Test one gland of each size and type. The gland shall be clean, new and without lubricant.

Screw the threaded fixing component of the gland into a suitable tapped hole in a substantial block of non-ferrous metal. The thickness of the block shall be greater than the length of the thread on the component, and the hole shall pass right through the block. Where a locknut is provided, carry out the tests with the gland mounted on a drilled gland plate of appropriate thickness.

NOTE it is important that the hole is bored square to the face of the block.

Assemble the gland on a mandrel of the appropriate diameter given in Table 1. Tighten the gland with a manually operated torque spanner to the appropriate proof torque given in Table 1; apply the spanner first to the main body of the gland and then to the seal compression nut. Dismantle the gland and examine it.

Appendix D Load test

Test one gland of each size and type. The gland shall be clean, new and without lubricant.

Mount the gland as shown in Figure 2. Secure a cylindrical non-ferrous metal mandrel, of the diameter specified in Table 1 and any convenient length, in the gland; do this by tightening the gland with a torque spanner to a value of torque equal to 50 % of the proof torque specified in Table 1. The mandrel, which shall be clean, dry and polished, shall carry a platform on which weights may be placed.

Mark the mandrel so that any movement relative to the gland can easily be detected. Load the mandrel with weights until the total tensile load of the mandrel, platform and weights is in accordance with Table 1. Maintain the load for 6 h. Measure at the end of this period, the distance if any, through which the mandrel has moved relative to the gland.

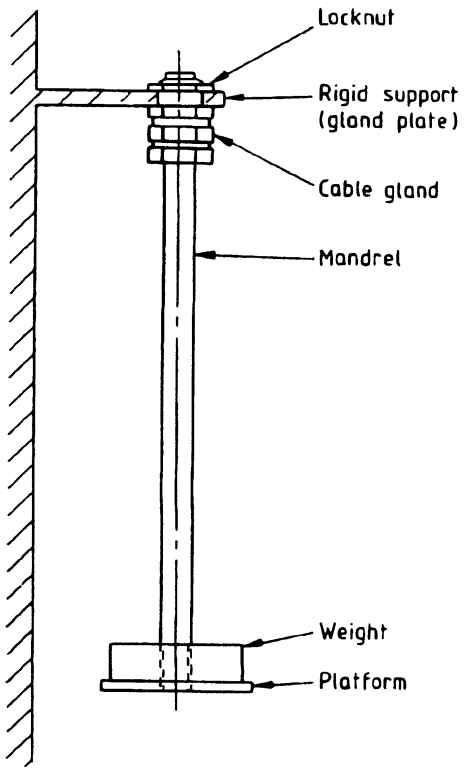

Figure 2 — Load test

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Appendix E Seal test for glands of type A2

Test one gland of each size. The gland shall be clean, new and without lubricant.

Fit the gland into a suitable enclosure, and seal the interface between the gland and the enclosure using a suitable washer or thread sealant. Seal into the gland a polished cylindrical metal mandrel, of the appropriate diameter specified in Table 1, by tightening the gland to 50 % of the relevant proof torque.

Test the gland in accordance with BS 5490 or BS 5420.

Appendix F Radial load test torque

Test one gland of each size and type.

Mount the gland in a suitable rigid support (gland plate) as shown in Figure 3. Fasten the gland to the gland plate using the correct gland nut. Insert into the gland a mandrel with a diameter approximately equal to the maximum diameter of the cable, (see Table 1), ensuring that the mandrel end does not enter the plane of the rigid support (gland plate). Make arrangements to suspend weights from the mandrel.

Apply the radial load torque given in Table 1 to the gland. When calculating the radial load torque to be applied, assume that the weight of the mandrel itself acts halfway along its length. Apply the load for not less than 5 min.

Finally, dismantle the assembly and inspect the gland for signs of damage.

Appendix G Endurance test

G.1 General

Select for the series of tests described in **G.3** to **G.5** two glands, which shall be the largest and smallest for which approval is sought.

G.2 Ageing

Place the glands in a UV weatherometer. Incline the glands to allow water to drain. Subject the glands to 500 alternate 4 h cycles of ultraviolet light and 100 % humidity at temperatures of 70 °C and 40 °C respectively. The spectral energy distribution of the lamps shall be as given for lamp E in BS 2782-5:Method 540B.

G.3 Proof torque test

Mount the gland on a non-ferrous block and assemble on a mandrel of the appropriate diameter as given in Table 1. Tighten the gland with a manually-operated torque spanner to the appropriate proof torque as given in Table 1.

G.4 Test load

Mount the gland on a suitable rigid support as shown in Figure 2, and tighten to 50 % of the appropriate proof torque value as given in Table 1. Subject the gland to the load test as described in Appendix D.

G.5 Radial load torque test

Mount the gland on a suitable non-ferrous rigid support (gland plate) as shown in Figure 3. Subject the gland to the radial load torque test as described in Appendix F.

Appendix H Flammability test

H.1 Principle

This test is intended to be performed on materials used to manufacture polymeric glands and is intended to serve as an indication of the acceptability of the material with respect to flammability.

H.2 Apparatus

H.2.1 *Test chamber,* fitted with a laboratory hood or similar enclosure to exclude forced or induced draught.

NOTE An enclosed laboratory hood with a heat resistant glass window, and an exhaust fan for removing the products of combustion are recommended.

H.2.2 *Bunsen burner or Timill burner,* having a tube with a length of 80 mm to 100 mm and an inside diameter of 9.5 mm. The tube shall not be equipped with end attachments (e.g. a stabilizer).

H.2.3 *Ring stand,* with clamps or equivalent and adjustable for vertical positioning of the specimens.

H.2.4 *Gas supply,* with suitable regulator and meter for uniform gas flow.

NOTE Natural gas having a heat content of approximately 37×10^6 J/m^3 has been found to give satisfactory results.

H.2.5 *Stopwatch,* or other suitable timing device.

H.2.6 *Desiccator,* containing anhydrous calcium chloride.

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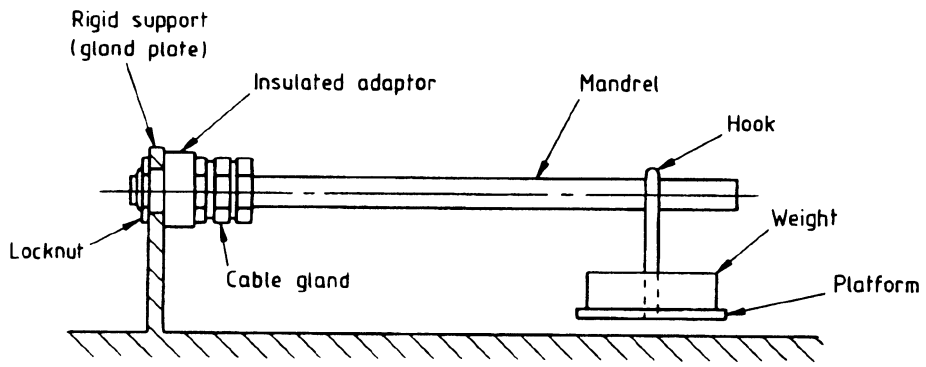

NOTE The mandrel shall not enter the plane of the rigid support.

Figure 3 — Radial load torque test

H.2.7 *Conditioning chamber,* capable of being maintained at 23 ± 2 °C and a relative humidity of 50 ± 5 %.

H.2.8 *Circulating air oven,* capable of being maintained at 70 ± 1 °C.

H.3 Specimens

H.3.1 ***Size***

Test specimens, 125 mm in length by 12.5 mm in width in the maximum and minimum thicknesses covering the range to be considered, shall be tested. Specimens tested by this method are limited to a maximum thickness of 12.5 mm. Specimens in intermediate thicknesses are also to be provided and may be tested if the results obtained on the maximum and minimum thickness indicate a need. Intermediate thicknesses are not to exceed increments of 3 mm. The specimens are to comply with the following:

a) maximum width of 13 mm;

b) maximum radius on the corners of 1.25 mm;

c) the edges are to be smooth.

H.3.2 ***Type***

If the material to be considered is in a range of colours, melt flows, or reinforcement contents, specimens representing those ranges are to be provided. Specimens in the natural (if used in this colour) and in the most heavily pigmented light and dark colours are to be provided and considered representative of the colour range, if the burning characteristics are essentially the same. An additional set of specimens is to be provided in the heaviest organic pigment loading, unless the most heavily pigmented light and dark colours include the highest organic pigment level. When certain colour pigments (e.g. red or yellow) are known by experience to have particularly critical effects, they are also to be provided. Specimens in the extremes of the melt flows and reinforcement contents are to be provided and considered representative of the range, if the burning characteristics are essentially the same. If the burning characteristics are not essentially the same for all specimens representing the range, evaluation is to be limited only to the material in the colours, melt flows, and reinforcement contents tested, or additional specimens in intermediate colours, melt flows, and reinforcement contents are to be provided for tests.

H.3.3 ***Number***

Prepare two sets of five specimens for each size and type of material to be tested.

H.4 Conditioning

Prior to testing, condition the specimens as follows:

a) condition one set of each size and type of material in a conditioning chamber (**H.2.7**) for a minimum duration of 48 h at 23 ± 2 °C and relative humidity of 50 ± 5 %;

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b) condition one set of each size and type of material in a circulating air-oven (**H.2.8**) for a duration of 168 h at 70 ± 1 °C and then cool the specimens in the desiccator (**H.2.6**), for a minimum duration of 4 h at room temperature.

H.5 Procedure

H.5.1 Place the ring stand and specimen in the test chamber (**H.2.1**).

H.5.2 Secure the specimen, with the longitudinal axis vertical, to the ring stand (**H.2.3**) so that the lower end of the specimen is 9 mm above the top of the burner tube (**H.2.2**). Ensure that the clamp or equivalent securing device is attached to the upper 6 mm of the specimen.

H.5.3 Remove the burner from the specimen, ignite it and then adjust it to produce a blue flame 19 mm high.

NOTE The flame may be obtained by first adjusting the gas supply and the air ports of the burner until a 19 mm yellow-tipped blue flame is produced and then increasing the air supply until the yellow tip disappears. Measure the height of the flame once again and correct, if necessary.

H.5.4 Place the flame centrally under the lower end of the specimen and allow to remain for 10 s. Withdraw the flame to a minimum distance of 150 mm. Use the stop-watch (**H.2.5**) to note the duration of flaming of the specimen. When flaming of the specimen ceases, immediately place the flame under the specimen again. After 10 s, withdraw the flame again and note the duration of flaming and glowing.

H.5.5 If the specimen drops molten or flaming material during either flame application, tilt the burner to an angle up to 45° and also slightly withdraw the flame from the specimen to avoid material dripping into the tube of the burner. The 9 mm distance between the bottom of the specimen and the top of the burner tube is to be maintained during the flame application. Any molten strings of the material are to be ignored, and the flame is to be applied to the major portion of the specimen.

H.6 Test report

The report should include the following observations:

a) duration of flaming after first flame application;

b) duration of flaming after second flame application;

c) duration of flaming plus glowing after second flame application;

d) whether or not specimens burn up to the holding clamp.

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Publications referred to

BS 192, *Specification for open-ended wrenches.*

BS 903, *Methods of testing vulcanized rubber.*

BS 903-A6, *Determination of compression set after constant strain.*

BS 903-A26, *Determination of hardness.*

BS 2782, *Methods of testing plastics.*

BS 2782-5, *Optical and colour properties, weathering.*

BS 2782:Method 540B, *Methods of exposure to laboratory light sources, (xenon arc lamp, enclosed carbon arc lamp, open-flame carbon arc lamp, fluorescent tube lamps).*

BS 3643, *ISO metric screw threads.*

BS 4727, *Glossary of electrotechnical, power, telecommunication, electronics, lighting and colour terms.*

BS 4727-2, *Terms particular to power engineering.*

BS 4727:Group 08, *Electric cable terminology.*

BS 5420, *Specification for degrees of protection of enclosures of switchgear and controlgear for voltages up to and including 1 000 V a.c. and 1 200 V d.c.*

BS 5490, *Specification for classification of degrees of protection provided by enclosures.*

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.*

DIN 40 430, *Steel conduit thread dimensions*[3)].

Fed-Std H.28, *Screw thread standards for Federal Services*[3)].

[3)] Available from BSI Sales Department, BSI, Linford Wood, Milton Keynes MK 14 6LE.

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