

SPECIFICATION FOR
RUBBER GLOVES
FOR ELECTRICAL
PURPOSES

B.S. 697 : 1960

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The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

A complete list of British Standards, numbering over 5000, indexed and cross-indexed for reference, together with an abstract of each standard, will be found in the Institution's Yearbook, price £1.

This standard makes reference to the following British Standards:

B.S. 350 Conversion factors and tables.

B.S. 358 Rules for the measurement of voltage with sphere-gaps.

B.S. 903 Methods of testing vulcanized rubber:
Part A2. Determination of tensile stress-strain properties.

Part A5. Determination of tension set.

Part A19. Accelerated ageing tests.

B.S. 907 Dial gauges for linear measurement.

B.S. 2918 Electric strength of solid insulating materials at power frequencies.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following B.S.I. references relate to the work on this standard:
Committee references PSM/7 and PSM/7/3
Draft for comment CZ(PSM) 9327

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The Personal Safety Equipment Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

- British Chemical Plant Manufacturers' Association
- *British Iron and Steel Federation
- British Ironfounders' Association
- British Leather Manufacturers' Research Association
- British Red Cross Society
- Cotton Board
- *Electricity Council, the Generating Board and the Area Boards in England and Wales
- *Federation of British Rubber and Allied Manufacturers
- Federation of Civil Engineering Contractors
- Glass Manufacturers' Federation
- *Imperial Chemical Industries Ltd.
- *Industrial Welfare Society
- *Institute of British Foundrymen
- *Institute of Welding
- Institution of Civil Engineers
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- National Federation of Building Trades Employers
- National Paint Federation
- Royal Society for the Prevention of Accidents
- Shipbuilding Employers' Federation
- *Trades Union Congress

The Government department and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committees entrusted with the preparation of this British Standard:

- Association of British Chemical Manufacturers
- British Electrical and Allied Industries' Research Association
- British Leather Federation
- British Man-made Fibres Federation
- British Mechanical Rubber Manufacturers' Association
- British Plastics Federation
- British Railways, The British Transport Commission
- British Seamless Rubber and Plastics Manufacturers' Association
- Gas Council
- Institution of the Rubber Industry
- London Transport Executive, The British Transport Commission
- National Association of Glove Manufacturers
- National Coal Board
- Post Office
- Research Association of British Rubber Manufacturers
- War Office
- Individual companies

• BRITISH STANDARD SPECIFICATION FOR
RUBBER GLOVES FOR ELECTRICAL •
PURPOSES

FOREWORD

This British Standard was originally prepared, at the joint request of the British Electrical and Allied Industries Research Association and the Research Association of British Rubber Manufacturers, to meet the demand for a standard for rubber gloves for electrical purposes. It was first published in 1936 and was revised in 1940 and 1953.

The early editions of the standard covered three classes of gloves rated for use on circuits where the maximum potential differences to be encountered did not exceed 660 volts, 1100 volts and 3300 volts r.m.s. respectively. But in 1953, the standard was again revised because, in Britain, work upon live equipment with a potential exceeding 650 volts to earth was, in most circumstances, at variance with the Electricity Regulations made under the Factories Acts of 1937 and 1948 and cited as the Electricity (Factories Act) Special Regulations, 1908 and 1944.

The present revised edition of the standard follows the 1953 edition and is divided into two parts: Part 1 deals with one class of gloves for use, in accordance with the Regulations, where the potential does not exceed 650 volts to earth; Part 2 deals with three classes of gloves rated at 1100 volts, 3300 volts and 4000 volts respectively, to be used only where the Regulations do not apply or in an emergency, e.g. for the purpose of saving life or averting disaster.

In this edition, the title of the standard has been changed from 'Electricians' rubber gloves' to 'Rubber gloves for electrical purposes' in order to avoid implied restriction of usage. The Electrical Test has been amended by specifying a double test to be carried out on new gloves by the manufacturer, to provide additional safeguards to the user. This new requirement is consequent upon investigations carried out on the effects of storage in humid conditions.

Appendix A 'Electrical test' and Appendix C 'Recommendations concerning the maintenance, inspection, re-test and use of rubber gloves' have also been amended to accord with the new test requirements. Special attention is drawn to the latter Appendix.

All the appendices apply to both Part 1 and Part 2 of the standard.

The issue of this standard does not imply that rubber gloves should afford the only means of protection for those working on electrical circuits. Every other practical precaution should be taken against the risk of shock, and whenever

possible the circuit should be isolated. In this connection attention is drawn to the Electricity Regulations referred to above.

- NOTE. Where metric equivalents are stated, the figures in British units are to be regarded as the standard. The metric conversions are approximate. More accurate conversions should be based on the tables in B.S. 350, 'Conversion factors and tables'.

SPECIFICATION

PART 1. GLOVES FOR USE ON POTENTIALS UP TO 650 V

SCOPE

1. Part 1 of this standard refers to rubber gloves intended for electrical purposes where the working potential (a.c. or d.c.) does not exceed 650 volts (r.m.s.) to earth. It applies to one class of glove only, this class being designated by its rated voltage.

These gloves may be used with external protection or reinforcement against mechanical damage, consisting of leather or other suitable material; where this is the case the standard relates only to the rubber portion.

The standard takes no account of the use of rubber gloves as secondary insulation for work where the actual potential difference is greater than the rated potential of the glove.

Gloves made by any of the following processes are included within the scope of Part 1 of this standard:

- a. A dipping process using
either (i) latex
or (ii) rubber solution.
- b. Building-up from sheet rubber.
- c. Moulding.

MANUFACTURE

2. The gloves shall be vulcanized and shall not contain any waste rubber, reclaimed rubber, or factice.

In gloves built up from sheet rubber all joints shall be made by butting or skiving the edges closely together, the joints being strengthened inside and/or outside with a rubber strap or tape of quality similar to that used in the glove itself.

TESTING

3. a. *Electrical tests.* Every glove in the consignment shall be subjected to the electrical tests specified in Clause 4.

b. *Mechanical and ageing tests.* Unless otherwise specified with the enquiry and order, the purchaser shall accept as evidence of the compliance of the consignment with the tests specified in Clauses 5, 6 and 7, certificates of type tests carried out on representative gloves identical in all essential respects with those

purchased. All the gloves so tested shall individually comply with the requirements of Clauses 5, 6 and 7. The tests to Clause 7 shall be carried out on the same gloves as have been used for tests to Clauses 5 and 6.

c. Testing authority. Tests shall be carried out by a recognized authority, who may be the manufacturer unless the purchaser otherwise specifies before the order is placed.

ELECTRICAL TESTS

4. Each glove shall be tested as follows:

a. Not less than 24 hours after vulcanization, it shall be prepared and tested as described in Appendix A. In this test, the potential shall be 5000 v (peak potential divided by $\sqrt{2}$). Each glove shall withstand this potential for 1 minute without breakdown and shall not pass a current of more than 4 mA.

b. Immediately on completion of this test, the glove shall be removed from the bath and shall be stored in a 'fingers-upward' position for a period of 24 hours in air, in substantially draught-free conditions at a temperature of $20 \pm 5^\circ\text{C}$ with a relative humidity of not less than 50 per cent.

c. The glove, in the condition arising from Sub-clause 4 *b*, shall be submitted for a second time to the test described in Appendix A, except that Clause *b* (i) shall be disregarded. In the second test, the potential shall again be 5000 v (peak potential divided by $\sqrt{2}$) and again the gloves shall withstand this potential for 1 minute without breakdown and shall not pass a current of more than 4 mA (r.m.s.).

d. (i) Any glove failing either of the two tests shall be destroyed so that it is unusable, e.g. slit.

(ii) Gloves passing both tests shall, after removal from the test bath, be thoroughly dried. Where heated air is blown into the gloves, it should not cause the temperature of any glove to exceed 65°C .

MECHANICAL TESTS

5. *a.* The tensile strength and elongation at break of the rubber forming the gloves shall be determined in accordance with B.S. 903, Part A2*, using test piece C dumb-bells cut with their long axes parallel to the length of the fingers. The rubber shall comply with the following requirements:

Tensile strength: not less than 2000 lb/sq in (140.6 kg/cm^2).

Elongation at break: not less than 600 per cent.

b. The tension set of the rubber forming the gloves shall be determined in accordance with B.S. 903, Part A5†, Method B except that the test elongation

* B.S. 903, 'Methods of testing vulcanized rubber', Part A2: 'Determination of tensile stress-strain properties'.

† B.S. 903, 'Methods of testing vulcanized rubber', Part A5: 'Determination of tension set'.

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- shall be 400 per cent. The recovery time shall be 10 minutes. Dumb-bells cut with their long axes parallel to the length of the fingers shall be used. The tension set shall not exceed 18 per cent.

AGEING TESTS

*As altered
Jan., 1966*

6. After ageing for 7 days at $70 \pm 1^\circ\text{C}$ in accordance with B.S. 903, Part A19*, Method B, the rubber used for the manufacture of gloves shall still retain at least 85 % of its tensile strength and elongation at break.

DIMENSIONS

7. *a. Length.* The internal length overall, i.e. from the tip of the second finger to the edge of the cuff (see Fig. 1) shall be as follows:

Wrist type: not less than $10\frac{1}{2}$ in (267 mm).

Gauntlet type: not less than 14 in (356 mm).

*As altered
Jan., 1965*

- b. Thickness.* The average thickness of the glove shall be determined by the method described in Appendix B, involving 8 measurements, and shall be not less than 0.040 in (1.02 mm). The value of any one of the 8 measurements shall be not less than 0.020 in (0.51 mm) and not greater than 0.100 in (2.54 mm).

- c. Other dimensions.* It is not considered practicable at present to specify standard dimensions other than the length and thickness, but attention is drawn to the recommended dimensions given in Appendix D.

WORKMANSHIP AND FINISH

*As altered
June, 1961*

8. The gloves shall be free from patched areas, embedded foreign matter, porosity, blisters (other than shallow broken blisters) or other physical defects. To ensure this, each glove shall be subjected to a thorough inspection. Minor surface irregularities which can cause no hazard or significant degradation in quality or life may be disregarded.

MARKING

9. The glove shall be marked with the following information:

- a.* The number of this British Standard, i.e. 'B.S. 697'.
- b.* Manufacturer's identification mark.
- c.* Month and year of manufacture.
- d.* Size of the glove.
- e.* '650 volts', followed by the word 'working' in brackets.

The marking shall be durable and shall not impair the quality of the glove; any additional marking shall be subject to agreement between the manufacturer and the purchaser.

* B.S. 903, 'Methods of testing vulcanized rubber', Part A19: 'Accelerated ageing tests'

PART 2. GLOVES FOR USE ON POTENTIALS BETWEEN 650 AND 4000 V*

SCOPE

10. Part 2 of this standard refers to three classes of rubber gloves: one class is intended for use where the working potential (a.c. or d.c.) is not greater than 1100 volts (r.m.s.) to earth; one is for use where the working potential (a.c. or d.c.) is not greater than 3300 volts (r.m.s.) to earth; and the third is for use where the working potential (a.c. or d.c.) is not greater than 4000 volts (r.m.s.) to earth. Each class is designated by its rated potential.

These gloves may be used with external protection or reinforcement against mechanical damage consisting of leather or other suitable material, in which case the standard relates only to the rubber portion.

The standard takes no account of the use of rubber gloves as secondary insulation for work where the actual potential difference is greater than the rated potential of the glove.

Gloves made by any of the following processes are included within the scope of Part 2 of this standard:

- a. A dipping process using
either (i) latex
or (ii) rubber solution.
- b. Building-up from sheet rubber.
- c. Moulding.

MANUFACTURE

11. The gloves shall be vulcanized and shall not contain any waste rubber, reclaimed rubber, or factice.

In gloves built up from sheet rubber all joints shall be made by butting or skiving the edges closely together, the joints being strengthened inside and/or outside with a rubber strap or tape of quality similar to that used in the glove itself.

TESTING

12. a. *Electrical tests.* Every glove in a consignment shall be subjected to the electrical tests specified in Clause 13.

b. *Mechanical and ageing tests.* Unless otherwise specified with the enquiry and order, the purchaser shall accept as evidence of the compliance of the consignment with the tests specified in Clauses 14, 15 and 16, certificates of type tests carried out on representative gloves identical in all essential respects with

* Such use of gloves is at variance with the requirements of the Electrical Regulations referred to in the Foreword of this standard.

those purchased. All the gloves so tested shall individually comply with the requirements of Clauses 14, 15 and 16. The tests to Clause 16 shall be carried out on the same gloves as have been used for tests to Clauses 15 and 16.

c. Testing authority. Tests shall be carried out by a recognized authority, who may be the manufacturer unless the purchaser otherwise specifies before the order is placed.

ELECTRICAL TESTS

13. Each glove shall be tested as follows:

a. Not less than 24 hours after vulcanization, it shall be prepared and tested as described in Appendix A. In this test the potential shall be the appropriate test potential shown in Table 1. Each glove shall withstand this potential for 1 minute without breakdown and shall not pass a current of more than the appropriate value shown in Table 1.

b. On completion of the test, the glove shall be stored in the 'fingers-upward' position for a period of 24 hours in air, in substantially draught-free conditions at a temperature of $20 \pm 5^\circ\text{C}$ with a relative humidity of not less than 50 per cent.

c. The glove, in the condition arising from Sub-clause 13 *b*, shall then be submitted for a second time to the test described in Appendix A, except that Clause *b* (i) shall be disregarded. In the second test, the potential shall be the same as that of the first test and again the glove shall withstand this potential for 1 minute without breakdown and shall not pass a current of more than the appropriate value shown in Table 1.

d. (i) Any glove failing either of the two tests shall be destroyed so that it is unusable, e.g. slit.

(ii) Gloves passing both tests shall, after removal from the test bath, be thoroughly dried. Where heated air is blown into the gloves, it should not cause the temperature of any glove to exceed 65°C .

TABLE 1. TEST POTENTIALS AND LEAKAGE CURRENTS

Rated potential (r.m.s.) of glove	Test potential (peak potential) $/\sqrt{2}$	Maximum leak- age current (r.m.s.)
V	V	mA
1 100	10 000	8
3 300	15 000	12
4 000	20 000	14

MECHANICAL TESTS

14. *a.* The tensile strength and elongation at break of the rubber forming the gloves shall be determined in accordance with B.S. 903, Part A2*, using test piece C dumb-bells cut with their long axes parallel to the length of the fingers. The rubber shall comply with the following requirements:

Tensile strength: not less than 2000 lb/sq in (140.6 kg/cm²).

Elongation at break: not less than 600 per cent.

b. The tension set of the rubber forming the gloves shall be determined in accordance with B.S. 903, Part A5*, Method B, except that the test elongation shall be 400 per cent. The recovery time shall be 10 minutes. Dumb-bells cut with their long axes parallel to the length of the fingers shall be used. The tension set shall not exceed 18 per cent.

AGEING TESTS

15. After ageing for 7 days at $70 \pm 1^\circ\text{C}$ in accordance with B.S. 903, Part A19*, Method B, the rubber used for the manufacture of gloves shall still retain at least 85 % of its tensile strength and elongation at break. *As altered Jan., 1966*

DIMENSIONS

16. *a. Length.* The internal length overall, i.e. from the tip of the second finger to the edge of the cuff (see Fig. 1) shall be as follows:

Wrist type: not less than $10\frac{1}{2}$ in (267 mm).

Gauntlet type: not less than 14 in (356 mm).

b. Thickness. The average thickness of the glove shall be determined by the method described in Appendix B, involving 8 measurements, and shall be not less than the minimum average value shown in Table 2. For gloves of rated potential 1100 volts and 3300 volts, the value of any one of the 8 measurements shall be not less than the minimum permissible value shown in Table 2 and not greater than 0.100 in (2.54 mm). For gloves of rated voltage 4000, the value of any one of the 8 measurements shall be not less than the minimum permissible value shown in Table 2 and not greater than 0.125 in (3.18 mm). *As altered Jan., 1965*

c. Other dimensions. It is not considered practicable at present to specify standard dimensions other than the length and thickness, but attention is drawn to the recommended dimensions given in Appendix D.

WORKMANSHIP AND FINISH

17. The gloves shall be free from patched areas, embedded foreign matter, porosity, blisters (other than shallow broken blisters) or other physical defects. To ensure this, each glove shall be subjected to a thorough inspection. Minor surface irregularities which can cause no hazard or significant degradation in quality or life may be disregarded. *As altered June 1961*

* B.S. 903, 'Methods of testing vulcanized rubber', Part A2: 'Determination of tensile stress-strain properties'. Part A5: 'Determination of tension set'. Part A19: 'Accelerated ageing tests'.

TABLE 2. THICKNESS OF GLOVES

Rated potential of glove (r.m.s.) V	Minimum average thickness		Minimum permissible thickness	
	in	mm	in	mm
1 100	0.050	1.27	0.025	0.63
3 300	0.070	1.78	0.035	0.89
4 000	0.080	2.03	0.040	1.02

MARKING

18. The glove shall be marked with the following information:

- a. The number of this British Standard, i.e. 'B.S. 697'.
- b. Manufacturer's identification mark.
- c. Month and year of manufacture.
- d. Size of glove.
- e. Rated potential (e.g. '1100 volts') followed by the word 'working' in brackets.

The marking shall be durable and shall not impair the quality of the glove; any additional marking shall be subject to agreement between the manufacturer and the purchaser.

APPENDIX A

ELECTRICAL TEST

a. **Apparatus.** (i) A source of alternating electrical current, approximately 50 cycles per second and of approximately sine wave form.

(ii) A step-up transformer having one end of the secondary winding earthed. The ratio of the peak potential to the r.m.s. potential of the secondary winding of the transformer is within the limits of $\sqrt{2} \pm 5$ per cent (1.34 to 1.48) under the test conditions. The rating of the testing set is not less than 2 kVA and not less than $\frac{1}{2}$ kVA per glove being tested.

(iii) Suitable control gear and means for input voltage variation (see B.S. 2918, 'Electric strength of solid insulation materials at power frequencies').

(iv) Potential (voltage) measuring equipment. This may be a peak or other type of voltmeter connected across the input winding, output winding or a special voltage winding or across a portion of the output winding. Any instrument used should be calibrated against a sphere gap in parallel with a load equivalent to the normal test load. For details of this method reference may be

made to B.S. 358, 'Rules for the measurement of voltage with sphere-gaps'. Any r.m.s. instrument may, however, be calibrated against a peak voltmeter, provided that there is adequate evidence that the latter is free from errors due, for example, to frequency changes, brush discharges or re-entrant wave forms (see B.S. 2918). The potentials given in Clause 4 and in Table 1 of Clause 13 are the peak values divided by $\sqrt{2}$.

(v) A milliammeter or other current-measuring equipment.

(vi) A bath in which the gloves may be immersed in tap water at a temperature of $20 \pm 5^\circ\text{C}$.

(vii) Insulating clips for suspending the gloves.

b. Preparation for test. (i) Before the commencement of each test, the cuffs of the gloves may be cleaned with industrial alcohol in order to prevent flash-over occurring through water seeping along the chalked surfaces.

(ii) Each glove is immersed in tap water (at $20 \pm 5^\circ\text{C}$) up to $1\frac{1}{2}$ in (40 mm) from the edge of the cuff and filled with tap water to the same level. The glove is immersed in this way for a period of 1 hour before test.

The glove is held in position by means of insulating clips.

(iii) The water inside and outside the glove forms the internal and external electrodes respectively. The inner electrode is connected to the high voltage supply by means of chains or wires. The external electrode is earthed through the milliammeter circuit.

c. Test procedure. (i) The potential applied across the test electrodes is raised from zero to the approximate r.m.s. test value as rapidly as is consistent with its value being observed on the measuring instrument, but not less than 1 kV per second.

(ii) The full test potential is then maintained for 1 minute and the leakage current (including the capacitive component) is measured during the last 15 seconds.

(iii) At the end of that time the potential is rapidly diminished to zero.

d. Test results. The reading of the current measuring instrument during the last 15 seconds of the test is taken as the leakage current.

APPENDIX B

DETERMINATION OF THICKNESS

The thickness of each glove is measured at not less than four points on the back and four points on the palm. The average of these measurements is termed the 'average thickness'.

*As altered
Jan., 1965*

*As altered
Jan., 1965*

These measurements are made with a micrometer dial gauge, the plunger and anvil of which are each right cylinders having a diameter of 0.100 ± 0.002 in (2.54 ± 0.051 mm) and are of sufficient length to avoid errors due to fouling of parts of the gloves on the instrument. The gauge has a scale graduated in unit divisions of 0.001 in (0.02 mm) and complies, where relevant, with the requirements of B.S. 907: 'Dial gauges for linear measurement', for a Type A gauge, particularly in respect of the accuracy of calibration. The dial gauge operates under a substantially dead-weight of 0.85 ± 0.10 oz (24 ± 3 g).

APPENDIX C

RECOMMENDATIONS CONCERNING THE MAINTENANCE, INSPECTION, RE-TEST AND USE OF RUBBER GLOVES

This appendix relates to the maintenance of gloves after purchase.

a. Storage. Each pair of gloves should be stored unfolded in a separate container* in a dry dark place where the temperature is preferably about 10 to 21°C. Gloves which have been issued for service but are not actually in use should be kept in their containers, which should not be used for any other purpose, or in such a place that they will not be easily subject to mechanical or chemical damage.

b. Issuing for use. Gloves intended for linesmen and outdoor workers should be issued in a protective container free from grease and oil, and of a type suited to the class of work for which they will be used. Canvas or leather bags that can be attached to the linesman's belt are well adapted to overhead line work. Fibre boxes are suitable when the gloves are to be kept in tool boxes, as they will thus be protected from sharp tools or oily rags or cloths.

Gloves issued for the sole purpose of emergency use should be kept in waterproof containers.

c. Examination before use. Before being used, every glove should be subjected to visual examination inside and out (the inside may have become cut by a finger nail). If, as a result of this examination, either of the gloves is thought to be unsafe, the pair should be submitted for re-test.

d. Precautions in use. (i) Gloves should not be unnecessarily exposed to heat or light or allowed to come into contact with oil, grease, turpentine, motor spirit, or strong acid.

* Certain materials, such as copper, manganese and oily, greasy or tarry substances have a deleterious effect on rubber. Containers made of or containing such materials on their interior surfaces should therefore be avoided.

•(ii) When protector gloves are used they should be worn over the rubber gloves. If the protector gloves become damp, oily or greasy, they should be removed. Protectors should be removed from the rubber gloves when these are not in use. •

(iii) When gloves become soiled, they should be thoroughly washed with soap and water, and dried and dusted with talc. If insulating compounds such as tar or paint still adhere to the glove, then the parts affected should be quickly wiped with carbon tetrachloride, and then immediately washed and treated as described above. Petrol, paraffin or white spirit should not be used to remove such compounds.

(iv) Any glove which becomes wet in use should be thoroughly dried. Where heated air is blown into the glove, it should not cause the temperature of any glove to exceed 65°C.

e. Inspection and retesting of gloves. Gloves issued for frequent use should be retested at intervals of not more than 6 months. Gloves issued for occasional use should be retested after use or in any case at intervals of not more than 12 months. Gloves held in stores should be retested at intervals of not more than 12 months.

Surface defects not visible on initial acceptance test and inspection may develop with use, resulting from the breaking of blisters in the rubber or from foreign matter breaking through the surface. All gloves which show any defects when returned after use should be rejected and dealt with as described in Sub-clause 4 d (i) or 13 d (i).

Each glove should be stretched by hand to ensure that its mechanical strength is adequate. Those which appear to be in good condition should be retested as follows:

(i) The gloves are given a single electrical test in accordance with the appropriate test potential as specified either in Sub-clause 4 a or Table 1 (i.e. according to the rated potential) and in the manner described in Appendix A.

(ii) In the retest no glove should break down or show a current leakage in excess of the maximum specified in either Sub-clause 4 a or Table 1, whichever is appropriate.

Only those gloves that pass this test should be accepted as satisfactory and should then be treated in the manner described in Sub-clause 4 d (ii) or 13 d (ii); all other gloves should be rejected and treated in the manner described in Sub-clause 4 d (i) or 13 d (i).

f. Salvage. When only one glove of a pair is rejected the other, where possible, may be re-mated with a similar glove of the same size and make; the resulting pair, after re-testing, can be placed in serviceable stock. No glove should be turned inside out for remating.

APPENDIX D

RECOMMENDED DIMENSIONS

Two types of former are commonly used in the manufacture of rubber gloves; namely, a flat type and a shaped type. Gloves made on the shaped type of former are more comfortable and are generally to be preferred.

Below is a table showing the principal internal dimensions of a well proportioned glove. The external dimensions will, of course, depend on the thickness of the rubber used. The dimensions shown are based on a study of a representative range of British-made gloves and formers, and may therefore be taken as representing average British practice.

RECOMMENDED INTERNAL DIMENSIONS IN INCHES

(See Fig. 1)

Detail	Size							
	8		9		10		11	
	in	mm	in	mm	in	mm	in	mm
Circumferences								
A	8.6	218	9.3	236	10.0	254	10.7	271
B	8.6	218	9.3	236	10.0	254	10.7	271
C*	2.29	58	2.46	62	2.65	67	2.83	72
D*	2.37	60	2.56	65	2.75	70	2.94	75
E*	2.20	57	2.38	60	2.55	65	2.73	69
N*	2.84	72	3.07	78	3.30	84	3.53	90
Lengths								
J (minimum) wrist	10.5	267	10.5	267	10.5	267	10.5	267
gauntlet	14.0	356	14.0	356	14.0	356	14.0	356
K	2.63	67	2.77	70	2.93	74	3.08	78
L	2.97	75	3.13	80	3.30	84	3.47	88
M	2.25	57	2.38	60	2.50	63	2.63	67
P†	1.79	45	1.91	48	2.05	52	2.19	56
Q	4.32	110	4.56	116	4.80	122	5.04	128
R	1.12	28	1.19	31	1.25	31	1.31	33
T	2.20	57	2.33	59	2.45	62	2.57	65
U†	6.7	170	7.0	178	7.4	188	7.8	198
V	0.34	8.6	0.36	9.1	0.37	9.4	0.39	9.9

* Circumference is measured half-way between crotch and tip.

† Applied to built-up gloves only.

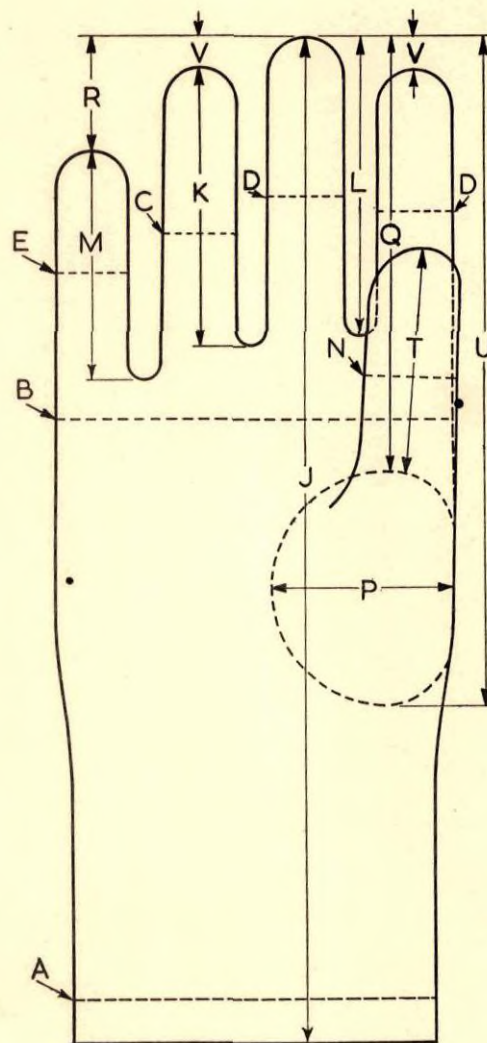


Fig. 1. Outline of glove and recommended internal dimensions

NOTE. If required, a reinforced extension for suspension purposes can be incorporated on the back of the wrist of wrist-type rubber gloves, but such an extension should be the subject of agreement between the purchaser and the manufacturer.

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