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International Standard 2882

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Rubber, vulcanized — Antistatic and conductive products for hospital use — Electrical resistance limits

Caoutchouc vulcanisé — Produits antiélectrostatiques et conducteurs à usage médico-hospitalier — Limites pour la résistance électrique

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2882 was developed by Technical Committee ISO/TC 45, *Rubber and rubber products*, and was circulated to the member bodies in January 1978.

It has been approved by the member bodies of the following countries :

Austria	Greece	Sweden
Belgium	Hungary	Switzerland
Brazil	India	Thailand
Bulgaria	Italy	Turkey
Canada	Mexico	United Kingdom
Czechoslovakia	South Africa, Rep. of	USA
Egypt, Arab Rep. of	Spain	USSR
France	Sri Lanka	Yugoslavia

The member body of the following country expressed disapproval of the document on technical grounds :

Australia

Printed in Switzerland

Rubber, vulcanized — Antistatic and conductive products for hospital use — Electrical resistance limits

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies limits for electrical resistance for certain antistatic and conductive products for hospital use.

These limits are generally appropriate for the products listed but, when an International Standard has been issued for an individual product, the limits and the test method specified therein shall be used in place of the limits and test method specified in this International Standard.

It applies neither to articles the relevant surfaces of which are composed of mixtures of insulating and conducting areas nor to articles with a substantial surface area of insulating material.

The tests are carried out on the finished product using a defined system of electrodes, by a system suited to factory inspection or service testing.

2 REFERENCE

ISO 2878, *Rubber, vulcanized — Antistatic and conductive products — Determination of electrical resistance.*

3 METHODS OF TEST

The product shall be tested in accordance with ISO 2878.

4 REQUIREMENTS

The electrical resistance of the product as manufactured shall comply with the requirements given in the table.

Item No.	Product	Electrical resistance Ω		Method of test (Reference to sub-clause in ISO 2878)
		min.	max.	
1	Anaesthetic airways	–	10^6	6.4.1
2	Anaesthetic bellows	–	10^6	6.2
3	Anaesthetic face pieces	–	10^6	6.2 or 6.3.1
4	Anaesthetic tubing	3×10^4 per metre	10^6 per metre	6.3.2 or 6.4.1
5	Breathing bags	–	10^6	6.5.1 or 6.5.2
6	Flooring material	5×10^4	2×10^6	6.1
7	Footwear	5×10^4	5×10^7	6.9.1 and 6.9.2
8	Furniture buffers	–	10^6	6.7
9	Furniture feet	–	10^6	6.6
10	Hose	3×10^3 per metre	10^6 per metre	6.4.1 or 6.4.2
11	Mattresses and pads	10^4	10^6	6.2
12	Sheeting and articles made from sheeting (for example aprons) for hospital use; both surfaces to be tested	–	10^6	6.1
13	Tyres for castors and wheels for hospital furniture	–	10^4	6.3.1
14	Non-wire reinforced hose with permanently attached metal end fittings	3×10^3 per metre	10^6 per metre	6.4.5
15	Mouldings, small	–	10^6	6.2

NOTE – The electrical resistance of antistatic products for use in anaesthetising areas of hospitals should not exceed 10^8 Ω at any time during their useful life, subject to local safety codes and regulations.

WARNING NOTE – Products which achieve their antistatic properties by a thin conductive surface coating may lose these properties during use as a result of wear or solvent action.

5 MARKING

If marking is to be provided, it shall be indelible and clearly visible, but of the smallest practicable area to avoid the introduction of unnecessary insulating material. The position of the marking shall be such that it will not materially affect the electrical resistance of the discharge path. The marking of any sheeting, hose or other material intended for cutting into lengths shall be applied throughout the length at intervals of not more than 300 mm.

Each item shall be marked in lemon yellow colour and, where practicable, the marking should include the word "antistatic".

NOTE – It is preferable that a floor should be marked with one installation test plate.