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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Plastics-coated fabrics for upholstery —

Part 3:
Specification for polyurethane-coated woven fabrics

Supports textiles revêtus de plastique pour ameublement et garniture —

Partie 3: Spécifications des tissus revêtus de polyuréthanne

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7617-3 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products.*

ISO 7617 consists of the following parts, under the general title *Plastics-coated fabrics for upholstery:*

- *Part 1: Specification for PVC-coated knitted fabrics*
- *Part 2: Specification for PVC-coated woven fabrics*
- *Part 3: Specification for polyurethane-coated woven fabrics*

Annexes A and B of this part of ISO 7617 form an integral part of the standard.

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Plastics-coated fabrics for upholstery —

Part 3:
Specification for polyurethane-coated woven fabrics

1 Scope

This part of ISO 7617 specifies requirements for polyurethane-coated fabrics for upholstered furniture, manufactured by applying to one side of a woven textile fabric a substantially continuous coating of a suitable polyurethane composition.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7617. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7617 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 105-A02 : 1987, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour.*

ISO 105-B01 : 1988, *Textiles — Tests for colour fastness — Part B01: Colour fastness to light: Daylight.*

ISO 105-B02 : 1988, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test.*

ISO 105-X12 : 1987, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing.*

ISO 1421 : 1977, *Fabrics coated with rubber or plastics — Determination of breaking strength and elongation at break.*

ISO 2231 : 1973, *Fabric coated with rubber or plastics — Standard atmospheres for conditioning and testing.*

ISO 2286 : 1986, *Rubber- or plastics-coated fabrics — Determination of roll characteristics.*

ISO 2411 : 1973, *Fabrics coated with rubber or plastics — Determination of the coating adhesion.*

ISO 4674 : 1977, *Fabrics coated with rubber or plastics — Determination of tear resistance.*

ISO 5978 : 1979, *Rubber- or plastics-coated fabrics — Determination of blocking resistance.*

ISO 7854 : 1984, *Rubber- or plastics-coated fabrics — Determination of resistance to damage by flexing (dynamic method).*

3 Technical requirements

3.1 Physical requirements

The material shall comply with the appropriate requirements of table 1.

3.2 Colour fastness requirements

The material shall comply with the requirements of table 2.

3.3 Visual examination

The coating of the material shall be uniformly applied and shall be free from visible flaws and cracks and when viewed under a magnification of X 10 shall be substantially free from pin holes. The base fabric, unless coated with an unpigmented coating, shall not be visible when viewed from the coated side.

3.4 Colour, grain and finish

The colour, grain and finish of the material, whether in single-colour or multicolour effects, shall be agreed between the purchaser and the supplier.

Colours shall be compared under the conditions stipulated in ISO 105-B01.

3.5 Width of material

The usable width of material when measured in accordance with ISO 2286 shall be as agreed between the purchaser and the supplier. For this purpose, the term "usable width" means the width of material that is coated in such a manner that it complies with the requirements of 3.3.

3.6 Flammability

A method of test for determination of the flammability characteristics of these materials shall be included as a mandatory requirement to be complied with in the absence of other, more stringent requirements of national authorities.*)

4 Sampling

If individual rolls can be identified with manufacturing batches, at least one sample shall be taken from each batch in the consignment. Each sample shall be regarded as being representative of its source, and suitable measures shall be taken to preserve the identify between the samples and batch numbers.

If individual rolls cannot be identified in this way, the number of samples to be regarded as being representative of the bulk shall be fixed by agreement between the purchaser and the supplier. Such samples shall be drawn at random.

5 Testing and compliance

Tests shall be conducted on a set of specimens selected from each sample.

The method of selecting specimens from each sample shall be in accordance with the requirements of annex A. If the specimens after testing comply with the appropriate requirements given in table 1 and table 2, the bulk of the coated fabric which the sample represents shall be deemed to comply with the requirements of this part of ISO 7617.

If any of the specimens tested do not comply with any of the appropriate requirements given in table 1 and table 2, the tests which the specimens have failed shall be repeated twice. For this purpose, two further samples shall be taken from the same source as the original sample, and test specimens shall be taken from each sample so that duplicate tests may be conducted. If all the re-test results comply with the appropriate requirements of table 1 and/or table 2, then the bulk represented by the samples from which the specimens for re-testing were taken, together with the original samples, shall be deemed to comply with the requirements of this part of ISO 7617. If any of the results of the re-tests do not comply with the appropriate requirements of table 1 or table 2, the bulk represented by those samples shall be deemed not to comply with the requirements of this part of ISO 7617.

Table 1 — Physical requirements

Property	Limit	Requirement	Method of test
Total mass/unit area (g/m^2)[1]	min.	300	ISO 2286
Coating mass/unit area (g/m^2)[1]	min.	100	ISO 2286
Tearing force (N) longitudinal transverse	 min. min.	 50 50	 ISO 4674 Method A1
Coating adhesion (N per 50 mm width)	min.	35	ISO 2411
Breaking load (N) longitudinal transverse	 min min	 450 450	 ISO 1421 Method B
Flex cracking (cycles)	min without damage	700 000	ISO 7854, Method B
Ageing 1) after exposure to 95 % r.h. and 70 °C for 336 h	min. without damage	300 000 cycles and attainment of min. coating adhesion	ISO 7854, Method B and ISO 2411
2) after exposure to conditions described in ISO 105-B02 for 100 h	min. without damage	300 000 cycles	ISO 7854, Method B
Print wear (change in appearance) (grey scale rating)	min.	3	Annex B
Blocking resistance	—	Separation without damage to surface	ISO 5978

1) The inclusion of minimum values for total mass/unit area and coating mass/unit area does not imply that a minimum value for base fabric mass/unit area may be calculated by subtraction.

*) Details of the method to be employed for this purpose are under consideration by ISO/TC 136, *Furniture*.

6 Marking

Each roll of fabric shall have a label attached bearing the following information:

a) the name and/or distinctive mark of the manufacturer and an identification reference for that material;

b) the batch number;

c) the colour;

d) the length;

e) the usable width;

f) the reference number of this part of ISO 7617 (i.e. ISO 7617-3).

Table 2 — Colour fastness requirements

Property	Limit	Requirement	Method of test
Colour fastness to artificial light (xenon arc)	min.	6	ISO 105-B02
to rubbing (wet and dry)	min.	4	ISO 105-X12

Annex A
(normative)

Method of selecting test specimens

The specimens for testing shall be selected from the sample in accordance with the scheme illustrated in figure A.1, which shows the positions from which the specimens for each type of test shall be taken, except that the specimens required for testing colour fastness to light and those required for heat ageing tests shall be selected from any suitable portion of the sample. In the case of multicolour samples, the specimen shall if possible include all colours. If it is not possible to include all colours, sufficient specimens shall be taken to enable all colours to be tested.

Key to figure A.1

M	Mass determinations
Tr	Tear strength (across longitudinal threads)
Tr	Tear strength (across transverse threads)
Tn	Breaking load (longitudinal)
Tn	Breaking load (transverse)
Ad	Coating adhesion
Fl	Resistance to flex cracking (longitudinal direction)
Fl	Resistance to flex cracking (transverse direction)
Ag	Ageing
Rb	Colour fastness to rubbing (wet and dry)
Ad.Ag	Adhesion after ageing
Fl.Ag	Flexing after ageing
B	Blocking resistance
P	Print wear