
**Textile machinery and accessories —
Machine parts in contact with textile
processing oils —**

Part 3:

Determination of the impact on lacquers

*Matériel pour l'industrie textile — Pièces de machines en contact avec
des huiles textiles —*

Partie 3: Détermination de l'impact sur les laques



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11659-3 was prepared by Technical Committee ISO/TC 72, *Textile machinery and machinery for dry-cleaning and industrial laundering*, Subcommittee SC 4, *Dyeing and finishing machinery and accessories*.

ISO 11659 consists of the following parts, under the general title *Textile machinery and accessories — Machine parts in contact with textile processing oils*:

- *Part 1: Determination of anticorrosive effect upon steel*
- *Part 2: Determination of the impact on polymeric materials*
- *Part 3: Determination of the impact on lacquers*

Textile machinery and accessories — Machine parts in contact with textile processing oils —

Part 3: Determination of the impact on lacquers

1 Scope

This part of ISO 11659 specifies tests for determining the impact of processing oils on textile machine parts made with lacquers. In view of the multitude of processing oils and lacquer systems, it addresses a selection of those substances and materials. However, testing of products not mentioned is also possible. It is applicable to textile processing oils used on fibres, yarns and the filaments prepared for their processing, and to lacquer systems applied to machine parts or test plates, including the necessary pre-treatment.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 175, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals*

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 1514, *Paints and varnishes — Standard panels for testing*

ISO 2409, *Paints and varnishes — Cross-cut test*

ISO 2812-1, *Paints and varnishes — Determination of resistance to liquids — Part 1: General methods*

ISO 2813, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20 °C, 60 °C and 85 °C*

ISO 2815, *Paints and varnishes — Buchholz indentation test*

ISO 2884-1, *Paints and varnishes — Determination of viscosity using rotary viscometers — Part 1: Cone-and-plate viscometer operated at a high rate of shear*

ISO 3205:1976, *Preferred test temperatures*

ISO 3270:1984, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

ISO 3668, *Paints and varnishes — Visual comparison of the colour of paints*

ISO 4628-2, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 2: Assessment of degree of blistering*

ISO 5661, *Petroleum products — Hydrocarbon liquids — Determination of refractive index*

ISO 7253, *Paints and varnishes — Determination of resistance to neutral salt spray (fog)*

ISO 7724-3, *Paints and varnishes — Colorimetry — Part 3: Calculation of colour differences*

ISO 10336, *Crude petroleum — Determination of water — Potentiometric Karl-Fischer titration method*

ISO 10523, *Water quality — Determination of pH*

ISO 12185, *Crude petroleum and petroleum products — Determination of density — Oscillating U-tube method*

3 Principle

IMPORTANT — Comparisons between lacquer systems on the basis of this test are permissible only if the test specimens are of the same dimensions (in particular of the same thickness) and, to the extent that this is possible, of the same physical condition (condition of the surface, inner stress, etc.) and in the same state of conditioning.

Partial immersion of the test specimens in a test liquid during a fixed duration of test and at a fixed storage temperature.

Checking of properties before and after impact and drying. If possible, properties are to be checked subsequently in the same test specimens.

4 Test method and general test conditions

4.1 Choice of test liquid and lacquer systems

4.1.1 Choice of test liquid

The test liquid shall be

- the processing oil in its original state, or
- a 10 % mixture of the processing oil with demineralized water (in cases where the lacquer systems concerned are usually in contact with aqueous formulations of the processing oils), or
- other formulations of processing oils (in cases where the lacquer systems concerned are usually in contact with such formulations),

selected in accordance with Annex A.

4.1.2 Choice of lacquer systems

Testing should be carried out on coatings from defined lacquer systems on machine parts or other test specimens. For systematic testing, select from Annex B lacquer systems with which test plates are coated.

4.2 Storage temperatures

Recommended temperatures for the storage of test specimens in the test liquid:

- a) (23 ± 2) °C;
- b) (70 ± 2) °C.