International Standard

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Textiles — Oil repellency — Hydrocarbon resistance test

Textiles — Oléofugation — Essai de résistance aux hydrocarbures

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Foreword

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This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 2, *Cleansing, finishing and water resistance tests,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 14419:2010), which has been technically revised.

The main changes are as follows:

— Clause 6 has been renamed “Reagents and materials”. The material “white textile blotting paper” has been moved to 6.4

— in 6.3, the CAS Registry Number® for white mineral oil has been added;

— Clause 8 has been revised:

  — the size of test specimens has been changed to 35 cm × 35 cm;

  — “Conduct the testing procedure over the test specimen’s width on minimum of two positions” has been added;

— 9.3 has been revised:

— “a minimum of” has been deleted, and

— “Exception can be made for known test specimens where beginning with a higher oil number is allowed; in this case the lowest-numbered test liquid shall be two below the known number.” has been added at the end of the first paragraph;

— in 9.5, the maximum number of six tests has been deleted;

— in Clause 11, Figure 1 has been replaced.

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Textiles — Oil repellency — Hydrocarbon resistance test

1 Scope

This document specifies a method for the evaluation of a substrate's resistance to absorption of a selected series of liquid hydrocarbons of different surface tensions.

This document provides guidance to oil stain resistance. It can provide a rough index of oil stain resistance as, generally, the higher the oil repellency grade, the better resistance to staining by oily materials, especially liquid oil substances. This is particularly true when comparing various finishes for a given substrate. This document can also be used to determine if washing and/or drycleaning treatments have any adverse effect on the oil repellency characteristics of a substrate.

NOTE 1 Washing and drycleaning treatment procedures are described in ISO 6330 and ISO 3175 (all parts), respectively.

This document is not intended to give an absolute measure of the resistance of the substrate to staining by all oily materials. Other factors, such as composition and viscosity of the oily substances, substrate construction, fibre type, dyes and other finishing agents, also influence stain resistance. This document is not intended to estimate the resistance to penetration of the substrate by oil-based chemicals.

NOTE 2 For the evaluation of the resistance to penetration of the substrate by oil-based chemicals, see ISO 6530.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 139, *Textiles — Standard atmospheres for conditioning and testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
grade
symbol for any step of a multistep standard reference scale for a quality characteristic

Note 1 to entry: The grade is assigned to test specimens exhibiting a degree of the quality comparable to that step of the standard reference scale.

3.2
oil repellency
characteristic of a fabric whereby it resists absorption of oily liquids

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