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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1513

PAINTS AND VARNISHES

EXAMINATION AND PREPARATION OF SAMPLES
FOR TESTING

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 1513, *Paints and varnishes — Examination and preparation of samples for testing*, was drawn up by Technical Committee ISO/TC 35, *Paints and varnishes*, the Secretariat of which is held by the Nederlands Normalisatie-instituut (NNI).

Work on this question led to the adoption of a Draft ISO Recommendation No. 1513 which was circulated to all the ISO Member Bodies for enquiry in November 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Ireland	Spain
Austria	Israel	Sweden
Denmark	Italy	Switzerland
France	Netherlands	Turkey
Germany	Peru	U.A.R.
Greece	Poland	United Kingdom
India	Portugal	U.S.S.R.
Iran	South Africa, Rep. of	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

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PAINTS AND VARNISHES

EXAMINATION AND PREPARATION OF SAMPLES FOR TESTING

INTRODUCTION

This ISO Recommendation is one of a series dealing with the sampling and testing of paints, varnishes and related products. The samples should have been taken in accordance with ISO Recommendation R 1512, *Paints and varnishes — Sampling*.

1. SCOPE

This ISO Recommendation describes both the preliminary examination of a single sample as received for testing and the procedure for preparing a test sample by blending and reduction of a series of samples representative of a consignment or bulk of paint, varnish or related product.

2. SAMPLE CONTAINER

2.1 Condition of container

Record any defects in the sample container or any visible leakage. If it is possible that the contents have been affected, this sample should be rejected.

2.2 Opening of container

Remove all packing materials (for example sawdust) and other debris from the outer surface of the container, particularly around the closure. Open the container carefully, taking care not to disturb the contents.

3. PRELIMINARY PROCEDURE FOR FLUID PRODUCTS SUCH AS VARNISHES, EMULSIONS, THINNERS, etc.*

3.1 Visual examination

3.1.1 *Ullage*. Record the approximate ullage, i.e. the airspace above the contents of the container, expressed as a percentage of the total capacity of the container.

3.1.2 *Surface skin*. Record the presence of any surface skin, and its type, i.e. whether continuous, whether hard or soft, and whether thin or moderately or excessively thick. If any skin is present, detach it as completely as possible from the sides of the container and remove it, if necessary by sieving. Record the ease of removal. For analytical control purposes where skin is present it may be necessary to disperse the skin and include it in the sample for testing.

* This corresponds to products of Types A and B in ISO Recommendation R 1512, *Paints and varnishes — Sampling*.

- 3.1.3 *Consistency*. Record whether the material is thixotropic or whether gelling has taken place, taking care not to confuse gelling and thixotropy*.
- 3.1.4 *Separation of phases*. Record any separation of the sample into layers, for example water and oily or resinous matter.
- 3.1.5 *Visible impurities*. If there are any visible impurities, record their presence and remove them if possible.
- 3.1.6 *Sediment*. If there is any appreciable sediment, record its presence and appearance.
- 3.1.7 *Clarity*. In the case of varnishes, thinners, catalyst solutions etc., record the clarity and colour of the sample.

3.2 Mixing

Thoroughly stir the material and incorporate any slight sediment.

4. PRELIMINARY PROCEDURE FOR FLUID PRODUCTS SUCH AS PAINTS**

4.1 Visual examination

- 4.1.1 *Ullage*. Record the approximate ullage, i.e. the airspace above the contents of the container, expressed as a percentage of the total capacity of the container.
- 4.1.2 *Surface skin*. Record the presence and type of any surface skin and its type, i.e. whether continuous, whether hard or soft, and whether thin or moderately or excessively thick. If any skin is present, detach it as completely as possible from the sides of the container and remove it, if necessary by sieving. Record the ease of removal. For analytical control purposes where skin is present it may be necessary to disperse the skin and include it in the sample for testing.
- 4.1.3 *Consistency*. Record whether the paint is thixotropic or whether gelling has taken place, taking care not to confuse gelling and thixotropy*.
- 4.1.4 *Separation of phases*. Record any separation of the sample into phases.
- 4.1.5 *Settling*. Record the type of settling, for example soft, hard or hard-dry. If the settling is hard and appears dry and crumbly inside a lump when cut with a clean palette knife, describe it as "hard-dry".
- 4.1.6 *Extraneous matter*. Record the presence of any extraneous matter in the paint and remove it as carefully as possible.

4.2 Mixing

- 4.2.1 *Limitations*. Samples which have gelled or show hard-dry settling (see clauses 4.1.3 and 4.1.5) cannot be effectively re-incorporated and should therefore not be used for testing purposes.
- 4.2.2 *General*. During all the operations described in clauses 4.2.3 to 4.2.5, care should be taken that the minimum loss of solvent occurs. To this end, all the operations should be carried out as rapidly as practicable, consistent with satisfactory mixing.
- 4.2.3 *Removal of skin*. If the original sample contained skin, remove any remnants by straining the incorporated sample under its own weight, through a sieve complying with ISO Recommendation R 565, *Woven wire cloth and perforated plates in test sieves* — Nominal sizes of apertures, of nominal aperture 125 µm unless otherwise specified.

* Both thixotropic and gelled paints and varnishes have a jelly-like consistency, but whereas the consistency of the former is markedly reduced by stirring or shaking, the consistency of a gelled paint or varnish cannot be reduced in this way.

** This corresponds to products of Type C in ISO Recommendation R 1512, *Paints and varnishes — Sampling*.