

DIN ISO 2836



ICS 87.080

Supersedes DIN 16524-1,
December 1994 edition, and
DIN 16524-2 and DIN 16524-3,
November 1965 editions.

Graphic technology
Prints and printing inks
Assessment of resistance to various agents
(ISO 2836:2004)

Drucktechnik – Drucke und Druckfarben – Bestimmung der Beständigkeit gegenüber verschiedenen Agen-
zien (ISO 2836:2004)

National foreword

This standard has been prepared by ISO/TC 130 'Graphic technology' (Secretariat: Germany).

The responsible German body involved in its preparation was the *Normenausschuss Druck- und Reproduktionstechnik* (Printing and Graphic Technology Standards Committee), Technical Committee 4 *Medien/Materialien*.

Amendments

This standard differs from DIN 16524-1, December 1994 edition, and from DIN 16524-2 and DIN 16524-3, November 1965 editions, as follows:

- a) The preparation of test prints as specified in DIN 16519 or ISO 2834 is no longer required. Any suitable method that allows a uniform distribution of ink to be formed on a specified substrate may now be used.
- b) The alkali resistance of prints shall now be determined using a 1 % by mass solution of sodium hydroxide in distilled water. Previously, a 1 % by mass solution was required for flexographic prints and a 2,5 % by mass solution for offset prints.
- c) The test temperature for liquid and solid agents has been increased from $(20 \pm 2) ^\circ\text{C}$ to $(23 \pm 2) ^\circ\text{C}$ (standard temperature).
- d) When testing the resistance to spices, weighting of the test piece with a 500 g mass is no longer required.
- e) In the test for staining of the filter paper, assessment of the results by means of a grey scale as specified in DIN 54002 is no longer required.

Previous editions

DIN 16524-1: 1958x-05, 1965-11, 1994-12

DIN 16524-2: 1958-05, 1965-11

DIN 16524-3: 1959-02, 1965-11

Document comprises 10 pages.

Graphic technology
Prints and printing inks
Assessment of resistance to various agents

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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 2836 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

This third edition cancels and replaces the second edition (ISO 2836:1999). It also incorporated the requirements of, and cancels, ISO 2837:1996 *Graphic technology — Prints and printing inks — Assessment of resistance to solvents* and ISO 11628:1995 *Graphic technology — Prints and printing inks — Determination of resistance of prints to acids*.

1 Scope

This International Standard specifies methods of assessing the resistance of printed materials to liquid and solid agents, solvents, varnishes, and acids.

It applies to printing on all substrates by all of the traditional printing processes and digital imaging processes such as ink-jet, electrophotography, etc. using marking materials appropriate to the printing process used.

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 2834:1999, *Graphic technology — Test print preparation for offset and letterpress inks*

ISO 105-A03:1993, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining*

3 Terms and definitions

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

3.1

agent

liquid or solid to which a sample of printed material is exposed for the purpose of determining the resistance characteristics of that printed sample

3.2

resistance

ability of a printed material to withstand exposure to a specified agent as determined by the tests defined in this International Standard