
**Imaging materials — Adhesive mounting
systems — Specifications**

*Matériaux pour l'image — Systèmes de montage adhésifs —
Spécifications*

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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Requirements	1
3.1 Characteristics of adhesive mounting systems	1
3.2 Types of construction	2
3.3 Types of thermally-activated materials	3
3.4 Classes of thermally-activated materials	4
3.5 Other adhesives	4
3.6 Adhesive strength	4
3.7 Blocking	5
3.8 Shelf life and storage conditions	5
4 Adhesion tests	5
4.1 General	5
4.2 Unaged adhesive test	5
4.3 Heat-aged adhesive test	7
4.4 Initial adhesive stress test	7
4.5 Adhesive shelf life test	8
4.6 Combined shelf life/heat-aged adhesive test	8
5 Bleed test (penetration of adhesive through paper)	8
6 Photographic activity test	8
Annex A (informative) Numbering system for related International Standards	9

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 18932 was prepared by Technical Committee ISO/TC 42, *Photography*.

This first edition cancels and replaces two separate ANSI standards which were combined to form this original ISO document.

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Introduction

Adhesives can either be permanent (of more interest to consumers mounting photos in albums) or reversible (of more interest to museums and conservators). This International Standard is geared to the former rather than the reversible adhesives. This International Standard assures that adhesives used to mount images are both permanent and photo safe.

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Imaging materials — Adhesive mounting systems — Specifications

1 Scope¹⁾

This International Standard provides specifications for adhesive mounting materials for use in attaching prints including photographic, electrophotographic, electrostatic, thermal transfer, or inkjet prints to mounting boards, album leaves, file cards, and other supports. This International Standard covers both pressure-sensitive and thermally-activated adhesives¹⁾. Spray adhesives are specifically excluded from this International Standard.

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 8510-1:1990, *Adhesives — Peel test for a flexible-bonded-to-rigid test specimen assembly — Part 1: 90 degree peel*

ISO 14145-1:1998, *Roller ball pens and refills — Part 1: General use*

ISO 14523, *Photography — Processed photographic materials — Photographic activity test for enclosure materials*

ISO 18902, *Imaging Materials — Processed photographic films, plates and papers — Filing enclosures and storage containers*

ASTM D3330/D3330M-00, *Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape*²⁾

ASTM D3611-89 (Reapproved 1998) *Standard Practice for Accelerated Aging of Pressure-Sensitive Tapes*²⁾

3 Requirements

3.1 Characteristics of adhesive mounting systems

3.1.1 General

Pressure-sensitive adhesive mounting systems commonly consist of two basic forms, supported and unsupported. They are usually applied to the back of the print. Both systems use release-coated liners to protect the adhesive prior to use.

1) This International Standard is not applicable to situations in which the permanent mounting of a photograph is not recommended.

2) Available from ASTM, 100 Bar Harbor Drive, West Conshohocken, PA 19428-2959.

Liquid adhesives require a compatible dispenser or applicator to apply the adhesive to the back of the print or the front of the mounting board. Pastes are more viscous and are usually applied with a brush or roller. Solid adhesives usually are adhered to the back of prints by manual pressure.

Thermally-activated dry mounting adhesives shall have uniform thickness, be flexible, essentially non-tacky at normal room temperature, and consist of two basic forms, supported and unsupported.

3.1.2 Reactivity

The adhesive shall not cause discoloration of the print, paper or mounting board. The adhesive shall meet the requirements of the bleed test in Clause 5 and the requirements of the photographic activity test in Clause 6.

3.1.3 Coating

Pressure-sensitive adhesives shall be applied uniformly to each side of a supporting carrier or a release liner. The adhesive surface shall be tacky to the touch at 23 °C.

Thermally-activated adhesives shall be uniformly coated on both sides of a carrier membrane or be independent as a dry unsupported sheet. The thermally-activated film adhesive shall have uniform thickness and be flexible, dry and essentially non-tacky at 23 °C. Thermally-activated film adhesives do not have release liners.

3.1.4 Physical characteristics

Important physical properties of the supports and adhesive layers of thermally-activated and pressure-sensitive adhesive materials shall include:

- 1) No surface structures that could impart texture patterns to the image due to pressure applied in mounting;
- 2) Uniform thickness and resistance to damage caused by handling;
- 3) No voids, particles or other irregularities;
- 4) Uniformly white or light colours if transparent, uniform colour if translucent or opaque.

3.1.5 Liners

Protective liners shall be easily removed from the adhesive without tearing or delaminating. The release coating on the release liners shall be uniformly coated without voids or streaks and shall be sufficiently bonded to the liner to prevent any transfer to the adhesive.

3.2 Types of construction

3.2.1 Supported pressure-sensitive adhesives

This adhesive system consists of a layer of pressure-sensitive adhesive coated on both sides of a carrier. The carrier may be any relatively thin, flexible material such as paper, film, polyester web, non-woven synthetic, etc. The carrier shall be uniform in thickness and appearance. The carrier shall comply with all requirements for paper or plastic materials in ISO 18902 and shall pass the PAT (Photographic Activity Testing) in accordance with ISO 14523.

This product is supplied in three basic forms:

- in roll form with one release liner;
- in roll or sheet form sandwiched between two release liners;

— coated on one side of a mounting board with one release liner.

Pressure-sensitive adhesives shall be free from imperfections and conform to ISO 14523 and ISO 18902.

3.2.2 Unsupported pressure-sensitive adhesives

This adhesive material has a single uniform layer of adhesive that is not reinforced or supported by a carrier.

The product is supplied in three basic forms:

- in roll form with one release liner;
- in roll or sheet form sandwiched between two release liners;
- coated on one side of a mounting board with one release liner.

3.2.3 Supported thermally-activated adhesives

This adhesive system consists of a layer of a thermally-activated adhesive film coated on both sides of a carrier. The carrier may be any relatively thin, flexible material such as paper, film, polyester web, non-woven synthetic, etc. The carrier shall be uniform in thickness and appearance. The carrier shall comply with all requirements for paper or plastic materials in ISO 18902 and should pass the PAT (Photographic Activity Testing) in accordance with ISO 14523.

The product is supplied in three basic forms:

- in roll form;
- in sheet form;
- coated on one side of a mounting board;
- coated on one side of canvas or other soft substrate with or without one release liner.

3.2.4 Unsupported thermally-activated adhesives

This adhesive system consists of a single uniform layer of adhesive that has not been reinforced or supported by a carrier.

The product is supplied in four basic forms:

- in roll form;
- in roll or sheet form;
- coated on one side of a mounting board;
- coated on one side of canvas or other soft substrate with or without one release liner.

3.3 Types of thermally-activated materials

3.3.1 Type I — Non-removable

The adhesive of this mounting material shall provide bonding between print and mounts, preventing deliberate separation to the print or mounting board surface by reheating for the time as specified by the manufacturer and temperature specified in 3.4.1 and 3.4.2. This type of adhesive will permanently bond after having reached recommended time/adhesion temperature within the mounting system.