
Self adhesive tapes — Determination of peel adhesion properties

*Rubans auto-adhésifs — Détermination des caractéristiques du
pouvoir adhésif linéaire*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 29862:2007) of which it constitutes a minor revision.

The changes compared to the previous edition are as follows:

- the normative references in [Clause 2](#) have been updated;
- definitions have been added in [Clause 3](#) for “self adhesive tape”, “liner” and “double sided adhesive tape”;
- a Bibliography has been added;
- the text has been editorially revised to comply with the most recent editing rules.

Self adhesive tapes — Determination of peel adhesion properties

1 Scope

This document specifies a series of methods for the determination of peel adhesion properties of self adhesives tapes.

This document contains:

- Method 1: Self adhesive tapes – Measurement of peel adhesion from stainless steel at an angle of 180°;
- Method 2: Self adhesive tapes – Measurement of peel adhesion from its own backing at an angle of 180°;
- Method 3: Self adhesive tapes – Measurement of peel adhesion of double sided and transfer tapes at an angle 180°;
- Method 4: Self adhesive tapes – Measurement of adhesion of the liner to an adhesive tape at an angle of 180°.

[Annexes A](#) and [B](#) specify further variations in the testing protocol according to specific conditions.

A guide to the use of these methods is given in [Table 1](#).

Table 1 — Methods and annexes

Method	Angle of peel	Temperature of test	
		23 °C	Low temperature
Method 1 Adhesion to steel	180°	—	Annex A
	90°	Annex B	-
Method 2 Adhesion to back- ing	180°	—	Annex A
	90°	Annex B	—
Method 3 Adhesion of double sided and transfer tape	180°	—	Annex A
	90°	Annex B	—
Method 4 Adhesion of liner	180°	—	Annex A
	90°	Annex B	-

NOTE 1 These methods provide a means of assessing the uniformity of the adhesion of a given type of self adhesive tape. The assessment may be within a roll of tape, between rolls or between production lots.

NOTE 2 Variations in the tape backing and adhesive affect the response. Therefore these methods cannot be used to pinpoint the specific cause(s) of non uniformity.

NOTE 3 These test methods may not be appropriate to test tapes having either relatively stiff backings, stiff liners or backing showing high stretch at low forces. These characteristics will result in a high variability for the test response which is not a true indication of the real nature of the adhesive bond.

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.

EN 12481, *Self adhesive tapes — Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12481 and the following apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

peel adhesion

force required to peel a strip of adhesive tape from a specified substrate at a specified angle and speed

3.2

open side

<adhesive> surface of the adhesive on a double sided tape which is exposed on normal unwinding or separation of the first liner

3.3

closed side

<adhesive> surface of the adhesive on a double sided tape which normally remains in contact with the release liner on normal unwinding or separation of the first liner

3.4

transfer tape

adhesive tape having two available pressure sensitive surfaces without the need for a carrier and with a release liner separating the adhesive surfaces. The adhesive may contain reinforcing material

3.5

self adhesive tape

pressure sensitive adhesive

adhesive which in a dry state is permanently tacky at room temperature and adheres readily to surfaces under brief and light pressure

3.6

liner

treated sheet to cover the adhesive temporarily to facilitate handling or unrolling

3.7

double sided adhesive tape

tape where adhesive is applied to both sides of the carrier

4 Significance and use

These test methods are tools for quality control use. Given specific self adhesive tape and a requirement in terms of the minimum or maximum value expected for this tape, the data from the test can be used in conjunction with acceptance criteria.

Test methods 1, 2, 3, and [Annexes A](#) and [B](#) can show the relative bond strength of a given tape to one or more surfaces (material and texture) as compared to the standard stainless steel panel. Substitution of representative samples of materials in question for the standard steel panel would suffice to do this.