



SLOVENSKI STANDARD
SIST EN 12032:1997

01-avgust-1997

Samolepilni trakovi - Merjenje sile vezave toplotno utrdljivih lepilnih trakov med sušenjem

Self-adhesive tapes - Measurement of bonding of thermosetting adhesive tapes during curing

Klebebänder - Messung der Bindefestigkeit von wärmehärtenden Klebebändern während der Vernetzung

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Rubans auto-adhésifs - Mesure de la liaison des rubans thermodurcissables pendant le traitement thermique

[SIST EN 12032:1997](https://standards.iteh.ai/catalog/standards/sist/3240c58a-39fd-4bf0-b1b7-3cad4aa5b23c/sist-en-12032-1997)

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Ta slovenski standard je istoveten z: EN 12032:1996

ICS:

83.180

Lepila

Adhesives

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en

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EUROPEAN STANDARD

EN 12032

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1996

ICS 83.180

Descriptors: adhesive tapes, thermosetting resins, tests, properties, cross-linking

English version

**Self adhesive tapes - Measurement of bonding of
thermosetting adhesive tapes during curing**

Rubans auto-adhésifs - Mesure de la liaison des
rubans thermodurcissables pendant le traitement
thermique

Klebebänder - Messung der Bindefestigkeit von
wärmehärtenden Klebebändern während der
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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 253 "Self adhesive tapes", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1996, and conflicting national standards shall be withdrawn at the latest by November 1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This standard specifies a method to observe the bonding of a thermosetting adhesive tape during the thermosetting process. The temperature and duration for each test shall be as the manufacturer's instructions for bonding the relevant adhesive tape.

2 Definition

For the purposes of this standard the following definition applies :

thermosetting adhesive : Adhesive which becomes firmer on heating and remains so on cooling and remains set regardless of subsequent temperature cycles.

3 Principle

A piece of adhesive tape to be tested is applied overlapping the back of a second piece of the same adhesive tape. This assembly is loaded with a weight, then suspended vertically in an oven, where it is cured under the specified temperature and time conditions.

4 Apparatus

4.1 Oven with air circulation

4.2 Polished cylindrical metal roller

This shall have a diameter of at least 50 mm and a mass corresponding to 2 kg per centimetre width of adhesive tape under test.

4.3 Polished metal plate, approximate dimensions 600 mm x 200 mm x 5 mm, with a guide mark on one of the short sides, which should be parallel and at a distance of 12 mm to one of the short sides.

4.4 50 g masses.

5 Test samples and test pieces

Condition three sample rolls (at least 12 mm wide) for 24 hours at $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ and $50\% \pm 5\%$ relative humidity.

Discard the three outer turns of adhesive tape from each roll .

Take two test pieces approximate 150 mm long from each sample roll.

6 Procedure

6.1 Preparation of test pieces

A test piece of adhesive tape taken from one of the sample rolls is applied with its adhesive surface on the back of a second test piece taken from the same roll, so that the length of the contact area measures $12 \text{ mm} \pm 0,8 \text{ mm}$.

6.1.1 Step 1 (figure 1)

To carry out this operation, the first test piece of adhesive tape is applied to the polished steel plate, at roughly the centre of this plate, so that the adhesive tape extends about 50 mm beyond the guide mark.

Carefully cut the adhesive tape with a razor blade along the short side of the plate nearest the guide mark.

6.1.2 Step 2 (figure 2)

Apply the second test piece of adhesive tape on top of the first test piece, as accurately as possible, and along a length of approximately 50 mm from the side of the plate nearest the guide mark.

Pass the metal roller twice, in each direction, over the contact area, at a speed of approximately 10 mm/s. Placing the metal plate at an angle and avoiding any pressure, a razor blade is arranged on the back of the second adhesive tape, aligning it with the guide mark made on the polished metal plate.

The top-most test piece of adhesive tape is gradually unpeeled and torn against the razor blade, thus defining a contact area of the adhesive tapes measuring $12 \text{ mm} \pm 0,8 \text{ mm}$.

6.1.3 Step 3 (figure 3 and figure 4)

The lower test piece of adhesive tape which is still attached to the metal plate is then unpeeled, starting at the uncut end (figure 3).

Trim lengthwise the test pieces prepared in this way and measuring more than 12 mm wide lengthwise to a width of $12 \text{ mm} \pm 0,8 \text{ mm}$ using a razor blade. It would then be appropriate to fold back the free ends of the test pieces over a length of approximately 50 mm, adhesive sides together (figure 4).

6.2 Test procedure

Suspend the three test pieces vertically in an oven, each loaded with a 50 g mass, at their lower ends. They remain thus for the period and at the temperature indicated in the adhesive tape manufacturers' instructions for the curing process.

7 Expression of results

Record if separation of the adhesive joint occurs.

A separation of the joint will have occurred if the weight has fallen or if the adhesive tape has slipped more than 2 mm.

8 Test report

The test report shall include the following information :

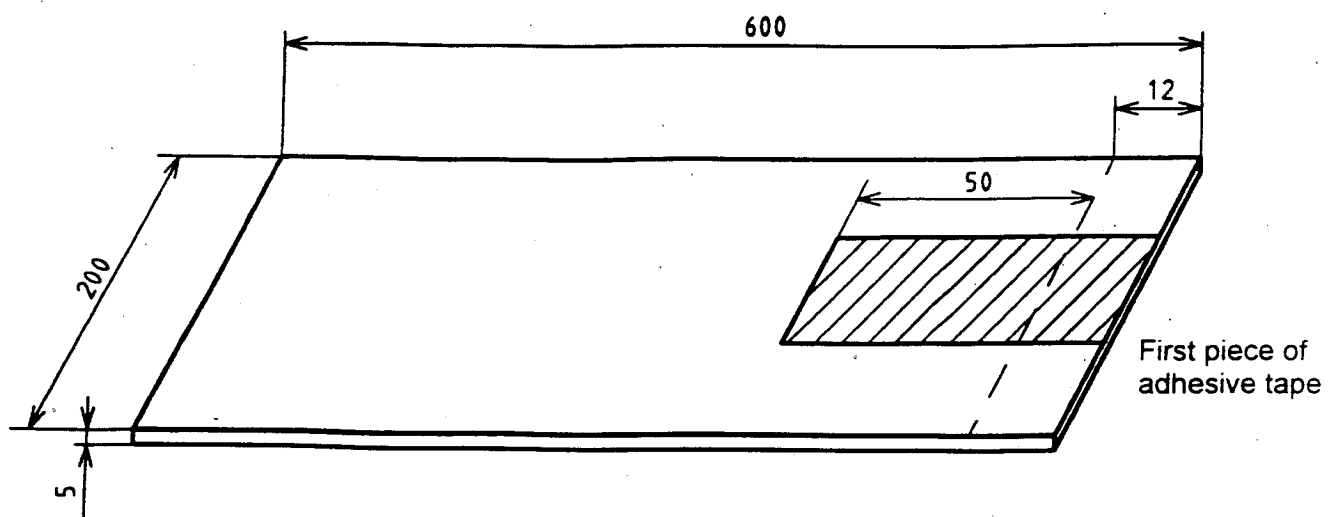
- a) a reference to this European Standard ;
- b) all information necessary to identify the test sample ;
- c) test conditions ;
- d) the date of the test ;
- e) the results obtained ;
- f) any operation not specified in this European Standard which may influence the results.

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Dimensions in millimeter



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Figure 1 : Step 1
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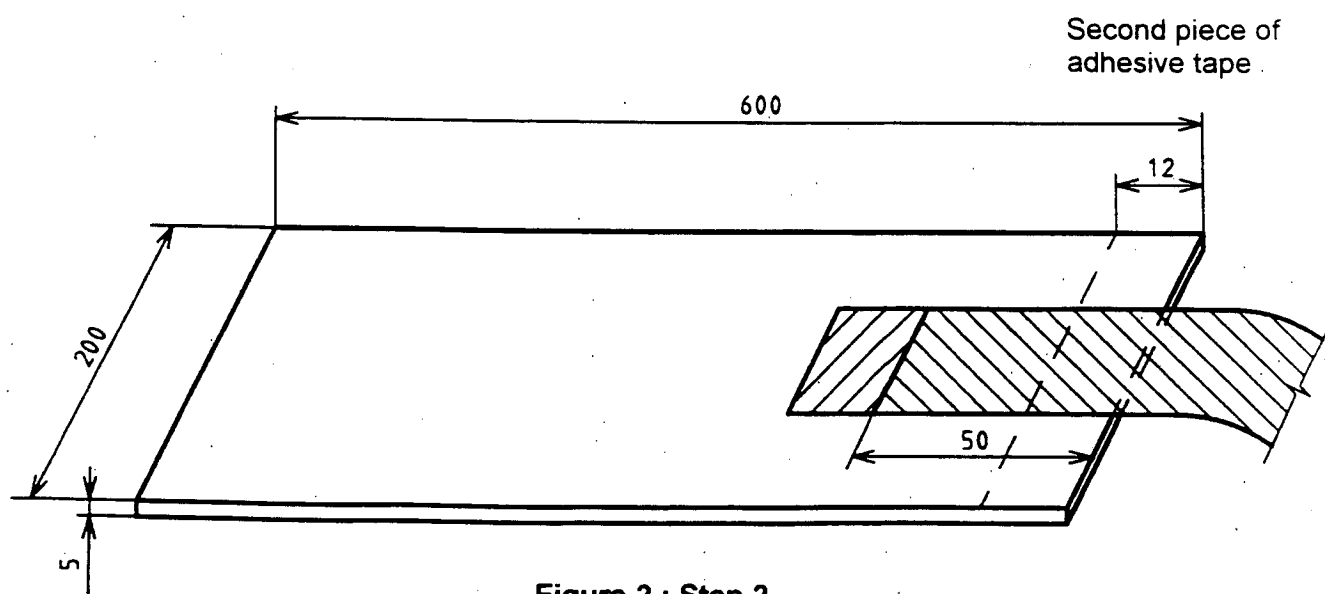


Figure 2 : Step 2