



**SLOVENSKI STANDARD**  
**SIST EN 12024:1997**  
**01-avgust-1997**

---

**Samolepilni trakovi - Merjenje odpornosti proti povišani temperaturi in vlažnosti**

Self-adhesive tapes - Measurement of resistance to elevated temperature and humidity

Klebebänder - Messung der Beständigkeit gegen erhöhte Temperaturen und Luftfeuchte

Rubans auto-adhésifs - Mesure de la tenue a la température et humidité élevées

**Ta slovenski standard je istoveten z: EN 12024:1996**

[SIST EN 12024:1997](https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997)

<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

**ICS:**

83.180          Lepila                                  Adhesives

**SIST EN 12024:1997**                                  **en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 12024:1997](#)

<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

EUROPEAN STANDARD

EN 12024

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1996

ICS 83.180

Descriptors: adhesive tapes, thermal tests, high temperature tests, damp heat tests

English version

**Self adhesive tapes - Measurement of resistance  
to elevated temperature and humidity**Rubans auto-adhésifs - Mesure de la tenue à la  
température et humidité élevéesKlebebänder - Messung der Beständigkeit gegen  
erhöhte Temperaturen und Luftfeuchte**(standards.iteh.ai)**SIST EN 12024:1997<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

This European Standard was approved by CEN on 1996-04-19. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

**Contents**

**Foreword**..... **3**

**1 Scope** ..... **4**

**2 Principle** ..... **4**

**3 Reagents** ..... **4**

**4 Apparatus**..... **4**

**5 Test samples**..... **4**

**6 Procedure**..... **5**

**7 Expression of results** ..... **6**

**8 Test report**..... **6**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 12024:1997](https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997)

<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

## 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.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 12024:1997](https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997)

<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

## 1 Scope

This standard specifies a method to obtain an indication of the behaviour of the adhesive tape under specified conditions of elevated temperature and high humidity.

## 2 Principle

The roll of adhesive tape is placed in an enclosure maintained at an elevated temperature and a high humidity for a sufficient period and the effect, if any, on the physical or chemical properties of the roll of adhesive tape mass is observed.

## 3 Reagents

Aqueous solution of glycerol of the following composition :

- 100 g of aqueous solution shall contain 46 g of glycerol. Specified gravity at 23 °C shall be approximately 1,17 and the refractive index (sodium D line) shall be approximately 1,392.

- 0,1 % by weight of copper sulphate shall be added to the solution to avoid mould growth. (For example, 4 drops of a saturated copper sulphate solution for every 100 ml of aqueous glycerol solution).

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

## 4 Apparatus

### 4.1 Desiccator

[SIST EN 12024:1997](https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997)

<https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>

The desiccator shall have an internal diameter of at least 300 mm and shall be constructed of material inert to copper sulphate. The lower part shall contain the aqueous solution of glycerol. The solution used is intended to maintain relative humidity of 85 %  $\pm$  2 % in the desiccator at the test temperature.

The level of the aqueous glycerol solution shall be at least 20 mm below the level of the perforated plate.

The desiccator shall not be left open longer than is necessary during insertion of the samples, so as not to cause a reduction in the level of the humidity during the test below that specified.

### 4.2 Air circulating oven

The oven shall be so constructed that the desiccator can stand in a region of the oven where the temperature can be maintained uniformly at 40 °C  $\pm$  2 °C or 65 °C  $\pm$  2 °C.

4.3 A humidity cabinet giving the above conditions may be used in place of 4.1 and 4.2.

## 5 Test samples

Commercial rolls of adhesive tape, preferably 25 mm wide and at least 9 m long, shall be taken as samples.

The rolls are tested "as received".

Rewound rolls shall not be used.

## 6 Procedure

### 6.1 Standard test conditions

The test shall be carried out at either of the temperatures specified in 6.3 and at  $85\% \pm 2\%$  relative humidity. (At the conclusion of the test period rolls will be return to  $23\text{ °C} \pm 2\text{ °C}$  and  $50\% \pm 5\%$  relative humidity).

### 6.2 Positioning in desiccator and oven

Place the rolls horizontally on the perforated plate but not touching each other.

Place the desiccator (without lid) in the oven. Allow the temperature to reach equilibrium before closing the desiccator. Ensure that the closure of the desiccator is air-tight.

### 6.3 Temperature and duration of test

Set the oven at either  $40\text{ °C} \pm 2\text{ °C}$  or  $65\text{ °C} \pm 2\text{ °C}$ .

The test shall be carried out at either of the above temperatures for seven days, unless otherwise stated in the specification sheets.

### 6.4 Observation of changes

6.4.1 Visual examination shall be made two hours after completion of the test during which period the roll shall have been placed in the standard atmosphere of  $23\text{ °C} \pm 2\text{ °C}$  and  $50\% \pm 5\%$  relative humidity.

All apparent changes which are noticeable should be noted, particularly telescoping, distortion, air bubbles, etc.

6.4.2 The experimental examination will be carried out by unwinding the roll radially at a speed of approximately 300 mm/s.

After elimination of the first three turns of adhesive tape any breakage, twisting, adhesive offsetting which occurs is reported, as also is delamination in the case of paper adhesive tapes.

Depending on the use to which the adhesive tape is to be applied, further testing may be carried out by measuring properties such as peel adhesion, tangential adhesive power, unwind force, etc. The corresponding test methods shall be used, and it is advisable to compare the values obtained both before and after exposure, to overcome errors of personal judgment.

## 7 Expression of results

7.1 The following exposure conditions shall be recorded : temperature selected and duration of test, if this differs from 7 days.

7.2 Record visual observations made at the end of the 2 hour cooling period in the standard atmosphere.

7.3 Observations made during the unrolling test.

7.4 The results of tests carried out both before and after exposure where additional optional tests methods are performed.

## 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) the exposure conditions : temperature selected and duration of test, if this differs from 7 days ;  
[SIST EN 12024:1997](https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997)
- d) the date of the test ; <https://standards.iteh.ai/catalog/standards/sist/b7aa962b-be31-4a4d-9c1c-ccc07d38d079/sist-en-12024-1997>
- e) the results of the observations and supplementary test data if applicable ;
- f) if desiccator or humidity chamber used for the tests ;
- g) any operation not specified in this European Standard, which may influence the results.