

## SLOVENSKI STANDARD SIST EN 12481:2002

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#### Samolepilni trakovi - Terminologija

Self adhesive tapes - Terminology

Klebebänder - Terminologie

Rubans auto-adhésifs Terminologie NDARD PREVIEW

Ta slovenski standard je istoveten z: EN 12481:2000

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Rubber and plastics

industries (Vocabularies)

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 12481

December 2000

ICS 01.040.83; 83.180

#### English version

## Self adhesive tapes - Terminology

Rubans auto-adhésifs - Terminologie

Klebebänder - Terminologie

This European Standard was approved by CEN on 24 November 2000.

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This European Standard exists 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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 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of an identical text or by endorsement, at the latest by June 2001, and conflicting national standards shall be withdrawn at the latest by June 2001.

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

#### 0 Introduction

This standard comprises terms peculiar to, or in general use in the adhesive tapes industry.

The terms defined have been classified so that, as far as possible, related concepts are grouped together. All definitions are numbered, and an alphabetical index which includes all adhesive tapes terms of this standard is provided. The numbering of the definitions reflects the classification. Each number comprises 5 digits, the first, second and third of which indicates the subclauses of clause 3 in which the definition belongs and the last two digits identify the individual definitions.

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The numbering of the individual definitions is the same in all three versions of this standard (English, French and German).

This standard can be used as a dictionary, combined with one or both of the other versions as a help for translations of terms to French or German, as a source of information about related concepts in the adhesive tapes industry or to provide a term for a concept.

#### In order to find:

- a) the definition for a term, look up the term in the alphabetical index at the end of this standard. The index will refer to the number of the term in the standard. The definition, the term and any synonyms appear by the number;
- b) information about related terms, look up the term in the alphabetical index to find its number in the standard. When the term has been located in the standard, the related concepts are to be found in the same section;
- c) the translation of a term into French or German, look up the number of the term in this standard and locate
  the translation of the term and the definition under the same number in the standard of the foreign edition.

NOTE Terms relative to electrical or medical use are not defined in this standard but those defined can be used for these applications.

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#### 1 Scope

This standard lists and defines terms used in the adhesive tapes industry and terms and definitions relating to adhesive tapes in those industries that use adhesive tapes.

Electrical and medical adhesive tapes are not covered by this standard.

NOTE In addition to terms used in the three official CEN/CENELEC languages (English, French and German), this European standard gives the equivalent terms in the Italian and Spanish languages in an informative annex; these are published under the responsibility of the National Committee/member body for Italy and Spain. However, only the terms and definitions given in the official languages can be considered as EN terms and definitions.

#### 2 Terms and definitions

For the purposes of this Standard, the following terms and definitions apply:

#### 2.1 Adhesive tape construction

#### 2.1.1 Adhesive tape families

#### 2.1.1.01

#### double coated; double faced; double sided

backing which is coated on both sides with pressure sensitive adhesive EVIEW

#### 2.1.1.02

#### label stock

## (standards.iteh.ai)

pressure sensitive materials which are usually printed, frequently die-cut, furnished in roll or sheet form with an release liner, and intended for use as labels

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#### 2.1.1.03

#### low tack tape

used (often incorrectly) to describe a pressure sensitive tape which has low adhesion

#### 2.1.1.04

#### pressure sensitive tape

a term to describe a category of adhesive tape coated on one or both faces with a pressure sensitive adhesive. This term will also describe the transfer tape category (see 2.1.1.05 - transfer tape)

#### 2.1.1.05

#### transfer tape

an 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 can contain reinforcing material

#### 2.1.1.06

#### insulating tape

normally applies to adhesive tape used for electrical insulation (covered by CENELEC). More generally adhesive tape used for insulation (thermal, electrical, others...)

#### 2.1.1.07

#### single faced

backing which is coated on one side with pressure sensitive adhesive

#### 2.1.2 Functional components

#### 2.1.2.01

#### backing

flexible material like for example fabric, foil, or paper which can be coated with a pressure sensitive adhesive

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#### 2.1.2.02

#### flatback

a term used to describe a smooth paper backing for an adhesive tape to distinguish it from a creped paper backing

#### 2.1.2.03

#### laminate

a combination of two or more materials which function as one e.g. Polyurethane foam and Polyester film

#### 2.1.2.04

#### pressure sensitive adhesive: adhesive mass

a type of adhesive, which is permanently tacky at room temperature and requires no activation by water, solvent or heat to adhere to a variety of dissimilar substrates upon contact. In some cases the adhesive may be further cured by heating after application. The bond strength can be increased by pressure and/or time

#### 2.1.2.05

#### reinforcement

a material which strengthens the backing and/or the adhesive

#### 2.1.2.06

#### easy unwind treatment; release coating

adhesive mass repellent coating applied in order to facilitate the unwinding of the adhesive tape

#### 2.1.2.07

#### thermoplastic adhesive

adhesive which softens under the influence of heat. It reverts back to the original state on cooling down. The process can be repeated

#### 2.1.2.08

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#### thermo-setting adhesive

one which becomes firmer on heating and remains so on cooling and remains set regardless of subsequent temperature cycles

#### 2.1.2.09

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#### carrier

the base material onto which a pressure sensitive adhesive is applied, on both faces, to produce a double sided adhesive tape

#### 2.1.2.10

#### closed side (adhesive)

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

#### 2.1.2.11

#### closed side (liner)

that surface of a release liner which remains in contact with the adhesive on normal unwinding or separation of the first liner

#### 2.1.2.12

#### coated cloth

fabric with a rubber or plastic back coating to give increased moisture resistance and longer wear

#### 2.1.2.13

#### creped paper

paper which has a crinkled surface giving it a higher stretch than a flatbacked paper

#### 2.1.2.14

#### filament

a single textile element of small diameter and very long length considered as continous. The filaments are produced from high strength materials such as glass, polyamide or polyester

#### 2.1.2.15

#### film

a thin plane product of arbitrarily limited maximum thickness in which the thickness is very small in proportion to length and width, generally supplied in roll form. Film can be made from many differents polymers and their properties can be verified with suppliers

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#### 2.1.2.16

#### foam

a soft cushion material formed by creating bubbles in base materials such as elastomeric or plastic materials

#### 2.1.2.17

#### hot melt pressure sensitive adhesive

An adhesive applied to the backing in a hot molten form which cools to form a pressure sensitive adhesive

#### 2.1.2.18

#### kraft

A sulphate wood pulp paper

#### 2.1.2.19

#### key coat; prime coat; primer; tie coat

Bonding agent between adhesive and backing

#### 2.1.2.20

#### metal foil

thin flexible sheets of metal such as aluminium or lead used as adhesive tape backings

#### 2.1.2.21

#### open side (adhesive)

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

#### 2.1.2.22

#### open side (liner)

## iTeh STANDARD PREVIEW

that surface of a release liner which is exposed on normal unwinding or separation of the first liner

#### 2.1.2.23

#### permanent adhesive

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an adhesive which cannot be removed without subsequent dammage to the adhesive tape or the substrate 6cf7bc2898a4/sist-en-12481-2002

#### 2.1.2.24

#### removable adhesive

an adhesive which allows subsequent removal, without damaging or contaminating the substrate, under specified conditions for use

#### 2.1.3 Non functional components

#### 2.1.3.01

#### core

the inner cylinder of cardboard or plastic around which the adhesive tape is wound

#### 2.1.3.02

#### release liner; interleave; interliner; liner

a removable material which protects the adhesive face or faces

#### 2.2 Adhesive tape properties

#### 2.2.1 Chemicals properties

#### 2.2.1.01

#### resistance to weathering

the resistance of an adhesive tape against defined weather factor effects

#### 2.2.1.02

#### curing; cross-linking

the development of a three dimensional structure within an adhesive to improve cohesive strength, temperature, oil or solvent resistance

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#### 2.2.1.03

#### electrolytic corrosion factor

an indirect measure of the adhesive tapes corrosive effect on a copper conductor

#### 2.2.1.04

#### resistance to acids, alkalies

the ability of an adhesive tape to resist exposure to such conditions after application and still perform satisfactorily

#### 2.2.1.05

#### resistance to oils, grease, solvents, etc.

the ability of an adhesive tape to resist exposure to such conditions after application, and still perform satisfactorily

#### 2.2.1.06

#### stain

a discolouration of the substrate

#### 2.2.1.07

#### stain resistant

term applied to an adhesive tape constructed such that it can be applied to a substrate without discolouring that substrate

#### 2.2.2 Physical properties

#### 2.2.2.01

#### abrasion resistance

the resistance of an adhesive tape against sliding and rolling friction

#### 2.2.2.02

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#### adhesion

the state in which two surfaces are held together by inter-facial forces

#### 2.2.2.03

#### SIST EN 12481:2002

### adhesion to backing

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the force that is required to remove by peeling an adhesive tape from its own backing to which it has been reapplied at a defined pressure

#### 2.2.2.04

#### breaking load

force recorded as a function of the initial width under prescribed conditions at breaking point

#### 2.2.2.05

#### bursting strength

the ability of an adhesive tape to resist damage when force is applied perpendicularly to the surface of the tape

#### 2.2.2.06

#### cohesion; cohesive stength; internal bond

the internal strength of an adhesive mass and its ability to resist splitting

#### 2.2.2.07

#### conformability

the ability of an adhesive tape to adapt itself to the surface of a convex shaped or irregular shaped object without creasing or folding in places

#### 2.2.2.08

#### flexibility

the ability of an adhesive tape to be freely bent or flexed during application, particularly applicable in low temperature use

#### 2.2.2.09

#### heat resistance

the ability of an adhesive tape to withstand a specified temperature under well defined conditions and to perform satisfactorily

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#### 2.2.2.10

#### holding power; shear adhesion

the resistance of the pressure sensitive adhesive against shear when forces are exerted parallel to the bonding surface

#### 2.2.2.11

#### impact resistance; shock resistance

the ability of an adhesive tape to resist sudden shock. For example, as can sometimes be encountered by packages in transit

#### 2.2.2.12

#### opacity

the ability of an adhesive tape to prevent the transmission of light

#### 2.2.2.13

#### peel adhesion

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

#### 2.2.2.14

#### residual elongation

the permanent increase in length of a stretched strip of adhesive tape after removal of tension

#### 2.2.2.15

#### tack; quick stick

the property of an adhesive tape that causes an instant bond, with measurable separation force, by the touching of the adhesive and a substrate with little or no externally applied pressure. The surface of the adhesive has an influence on this property

#### 2.2.2.16

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#### tear resistance

the ability of an adhesive tape to resist tearing

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#### 2.2.2.17

#### thickness; caliper; gauge

the vertical distance between the two surfaces of an adhesive tape

#### 2.2.2.18

#### unwind adhesion

the force required to unroll the adhesive tape under prescribed conditions

#### 2.2.2.19

#### water absorption

the measure of the amount of water which will be taken up by an adhesive tape under prescribed conditions

#### 2.2.2.20

#### water vapour transmission rate (WVTR)

the mass of water vapour passing through a unit area of adhesive tape in unit time under prescribed conditions of relative humidity and temperature

#### 2.2.2.21

#### elongation at break

the increase in length of the adhesive tape at the time of breaking as a percentage of the original length

#### 2.2.2.22

#### breaking strength

the ability to resist breaking when subject to load under prescribed conditions

#### 2.2.2.23

#### creep

a flow movement of the adhesive or backing under strain

#### 2.2.2.24

#### gloss

the degree to which a surface approaches perfect optical smoothness in its capacity to reflect light

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#### 2.2.2.25

#### insulation resistance

the insulation resistance between two electrodes which are in contact with, or embedded in, a specimen, is the ratio of the direct voltage applied to the electrodes to the total current between them at a given time after the application of that voltage, it is dependent upon both the volume and surface resistances of the specimen

#### 2.2.2.26

#### peel adhesion build up

an increase in the adhesion value of a pressure sensitive tape after it has been allowed to dwell on the substrate

#### 2.2.2.27

#### shrinkage

reduction of any dimension of an adhesive tape

#### 2,2,2,28

#### stiffness

a indication of an adhesive tape's flexibility and conformability

#### 2.2.2.29

#### tensile strength

the force required to break unit cross section area of the backing. It is a property of the material which is independent of the thickness of the sample

#### 2.2.2.30

#### transparency

the property of a material by which a negligible portion of the transmitted light undergoes scattering, thereby enabling objects to be distinguished clearly through the material PREVIEW

#### 2.2.2.31

#### ultimate adhesion

## (standards.iteh.ai)

the maximum adhesion available from a pressure sensitive adhesive. Ultimate adhesion will be developed only after on extended period of time in contact with the substrate 1 2002

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#### 2.2.3 Other properties

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#### 2.2.3.01

#### high speed unwind

unwinding of the adhesive tape at a relatively high speed, at least 0,25 m/sec (15 m/min)

#### 2.2.3.02

#### printability

the ability of an adhesive tape to retain printing ink such that when unwound from the roll there is no ink transferral

#### 2.2.3.03

#### removal

the act of pulling adhesive tape away from the substrate

#### 2.2.3.04

#### storage stability; roll ageing resistance

the ability of an adhesive tape to retain a specified level of its original properties after defined conditions and length of time of storage

#### 2.2.3.05

#### curlina

the tendency of an adhesive tape to twist, curl up or turn back after unwinding and allowed to hang from the roll

#### 2.2.3.06

#### delamination

a separation of the backing or carrier into two distinct layers

#### 2.2.3.07

#### lifting

occurs when sections of adhesive tape lose contact with the substrate to which the adhesive tape is applied

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#### 2.2.3.08

#### offsetting; transfer

the movement of a component of an adhesive tape, usually the adhesive, from its proper place to some other position. This transfer can occur during unwinding of the adhesive tape, or upon removal of the adhesive tape from the substrate

#### 2.2.3.09

#### adhesive deposit; adhesive residue

adhesive which is pulled away from the adhesive tape on removal and remains on the substrate

#### 2.2.3.10

#### adhesive failure

failure of an adhesive bond such that the separation is at the interface of adhesive and substrate leaving negligible

#### 2.2.3.11

#### adhesive transfer

the transfer of adhesive from its normal position on the adhesive tape to the surface to which the adhesive tape was attached, either during unwind or removal

#### 2.2.3.12

#### blocking

an undesired adhesion between touching layers of material

#### 2.2.3.13

#### cohesive failure

failure of an adhesive bond such that the separation is within the adhesive

#### 2.2.3.14

## (standards.iteh.ai)

#### edge curl

the peeling back or lifting of the outer edge of an adhesive tape lafter application

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#### 2.2.3.15

#### elastic memory

a tendency of some adhesive tape backings to attempt to return to their original length after becoming elongated

#### 2.2.3.16

### flame resistance

the ability of a pressure sensitive tape to withstand exposure to flame under specified conditions

#### 2.2.3.17

#### key failure

failure of an adhesive bond such that separation is at the interface of adhesive and carrier or backing

#### 2.2.3.18

#### migration; bleeding

the movement over a period of time, of an ingredient from one component to another when the two are in surface contact. Can occur between adhesive tape components or between an adhesive tape and the substrate

#### 2.2.3.19

#### oozina

a squeezing out of the adhesive occurring when the adhesive tape is in roll form resulting in tacky edges

#### 2.2.3.20

the unwanted separation of an adhesive tape from its release liner during unwinding

#### 2.2.3.21

#### slivering

adhesive tape tears or breaks into small pieces, either on unwind or on removal from a surface