

**Liimid. Märgavus. Tahke aluspinna kontaktnurga mõõtmine ja kriitilise pindpinevuse määramine**

**Adhesives - Wettability - Determination by measurement of contact angle and surface free energy of solid surface**

## EESTI STANDARDI EESSÕNA

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See Eesti standard EVS-EN 828:2013 sisaldab Euroopa standardi EN 828:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 828:2013 consists of the English text of the European standard EN 828:2013.
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ICS 83.180

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English Version

Adhesives - Wettability - Determination by measurement of  
contact angle and surface free energy of solid surface

Adhésifs - Mouillabilité - Détermination par mesurage de  
l'angle de contact et de l'énergie superficielle libre de la  
surface solide

Klebstoffe - Benetzbarkeit - Bestimmung durch Messung  
des Kontaktwinkels und der freien Oberflächenenergie  
fester Oberflächen

This European Standard was approved by CEN on 24 November 2012.

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## Foreword

This document (EN 828:2013) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by AENOR.

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of an identical text or by endorsement, at the latest by July 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 828:1997.

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People applying this document, the user shall be familiar with normal laboratory practice. This standard does not purport to address all the safety problems, if any, associated with its use. It is the responsibility of the user to establish safety and health practices and to ensure their compliance with the provisions of any regulatory conditions.

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## 1 Scope

This European Standard specifies a method for the determination of the surface free energy of a solid surface by measuring the contact angle of a liquid wetting the solid surface. It allows the prediction of the ability of a particular adhesive to wet a particular adherend. It can be used to characterise surfaces intended for pre-treatment, coating or bonding.

NOTE 1 In order to determine the surface free energy, the method of measuring the static contact angle is used in combination with a statistical interpretation.

NOTE 2 The measurement results are influenced by mechanical surface roughness and chemical homogeneity.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 923:2005+A1:2008, *Adhesives — Terms and definitions*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923:2005+A1:2008 and the following apply.

### 3.1

#### **triple point**

point where the solid, the liquid and the gas phases coincide with each other

Note 1 to entry: The triple point can be identified in the silhouette of a liquid drop situated on a test piece, at the intersection of the drop's contour line with the test piece surface.

### 3.2

#### **baseline**

in the case of plane test pieces, a straight line going through the two triple points

### 3.3

#### **contact angle**

$\theta$

angle to the baseline, formed by a tangent to the drop contour going through one of the triple points (see Figure 1)