Adhesives - Determination of resistance to flow (sagging)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 14678:2005 sisaldab Euroopa standardi EN ISO 14678:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 14678:2005 consists of the English text of the European standard EN ISO 14678:2005. This document is endorsed on 29.09.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard describes seven methods for the assessment of the flow characteristics of adhesives after application at room temperature and during cure, by the measurement of sagging. These methods may be used both for specifying an adhesive and for quality control purposes.	**Scope:** This European Standard describes seven methods for the assessment of the flow characteristics of adhesives after application at room temperature and during cure, by the measurement of sagging. These methods may be used both for specifying an adhesive and for quality control purposes.

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Adhesives - Determination of resistance to flow (sagging) (ISO 14678:2005)

Adhésifs - Détermination de la résistance au fluage (coulure) (ISO 14678:2005)

Klebstoffe - Bestimmung des Widerstandes gegen Fließen (Sagging) (ISO 14678:2005)

This European Standard was approved by CEN on 29 April 2005.

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.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This European Standard (EN ISO 14678:2005) has been prepared by Technical Committee CEN/TC 193 "Adhesives", the secretariat of which is held by AENOR, in collaboration with Technical Committee ISO/TC 61 "Plastics, Subcommittee SC 11, Products".

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 February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

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

Introduction

When an adhesive joint is prepared, it is important that the applied adhesive does not flow away from the area of the joint. Flow can occur before the joint has been assembled, e.g. before solvent or water has evaporated, or after the joint has been closed, but before the adhesive has set, e.g. during the curing, solidification, or drying process.

The flow of an applied adhesive will be influenced by the stress applied and the duration and temperature of the bonding process. The extent of flow of an adhesive will also be influenced by the surface energies involved and the degree of roughness of the adherents. The occurrence of flow under gravity is called sagging (see Clause 3).

This European Standard describes three types of test for the assessment of sagging. In the first type of test, which simulates the conditions before joint assembly, the extent of flow of an adhesive down a surface which is either vertical (Methods 1, 2 and 3) or at 60° to the horizontal (Method 4) is measured. In the second type of test, which simulates conditions after assembly (Methods 5 and 6), the flow of adhesive from a hole or slot is observed. The third type of test simulates conditions during the cure cycle for structural film adhesives (Method 7). The method appropriate to the type of adhesive and its consistency should be selected.

1 Scope

This European Standard describes seven methods for the assessment of the flow characteristics of adhesives after application at room temperature and during cure, by the measurement of sagging. These methods may be used both for specifying an adhesive and for quality control purposes.

2 Normative references

The following referenced documents are indispensable for the application 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 923:1998, *Adhesives — Terms and definitions*

EN 1067, *Adhesives — Examination and preparation of samples for testing*

EN 13887, *Structural Adhesives - Guidelines for surface preparation of metals and plastics prior to adhesive bonding*

EN ISO 15605, *Adhesives - Sampling (ISO 15605:2000)*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 923:1998 together with the following apply.

3.1
flow
deformation of an adhesive or adhesive layer

3.2
sagging
downward movement of an adhesive film between the time of application and setting resulting in an uneven coating having a thick lower edge

NOTE The resulting sagging is usually restricted to a local area of a vertical surface.