Irish Standard
I.S. EN 15307:2014

Adhesives for leather and footwear materials - Sole-upper bonds - Minimum strength requirements

I.S. EN 15307:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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English Version

Adhesives for leather and footwear materials - Sole-upper bonds - Minimum strength requirements

Colles pour cuir et matériaux de la chaussure - Collages tige-semelle - Exigences minimales en matière de résistance

Klebstoffe für Leder und Schuhwerkstoffe - Sohlen-Obermaterial-Klebungen - Mindestanforderungen

This European Standard was approved by CEN on 23 November 2014.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Foreword

This document (EN 15307:2014) 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of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

This document supersedes EN 15307:2007.

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.

With respect the previous version of EN 15307, the following main changes have been made:

1. In order to clarify, the test in 5.2.1 has been reworded as follows:

“The peel resistance after 4 d storage in the standard atmosphere 23/50 according to ISO 554 shall be for sole-upper bonds of:

Class A: at least 2,5 N/mm;

Class B: at least 3,0 N/mm, or at least 2,5 N/mm with material failure;

Class C: at least 4,0 N/m or at least 3,0 N/mm with material failure;

Class D: at least 5,0 N/mm or at least 3,5 N/mm with material failure.

Definition of “material failure” is included in EN ISO 10365.”

2. In order to clarify 5.2.3, the sentence “(separation distance of the bonding)” has been added before the comma.

3. In order to clarify, the test in 6.5 has been reworded as follows:

“Before starting peel tests specified in 6.1 store the test pieces in the standard atmosphere of 23/50 according to ISO 554 for 4 d in case of test described in (5.2.1), for 2 min in case of test described in (5.2.2) and before warming up to (50 ± 2) ºC for 6 d in case of test described in (5.2.3).”

4. In Annex A, the full name of the abbreviations NBR, SBR, SBSR and PVC have been added between parentheses in the test.

SAFETY STATEMENT — Persons using this document should be familiar with the normal laboratory practice, if applicable. This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any regulatory conditions.

ENVIRONMENTAL STATEMENT — It is understood that some of the material permitted in this standard may have negative environmental impact. As technological advantages lead to acceptable alternatives for these materials, they will be eliminated from this standard to the extent possible.

At the end of the test, the user of the standard should take care to carry out an appropriate disposal of the wastes, according to local regulation.

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

1 Scope

This European Standard defines for four main types of footwear minimum strength requirements for their sole-upper bonds produced with solvent-based or dispersion adhesives under specified conditions.

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*

EN 1392, *Adhesives for leather and footwear materials-Solvent-based and dispersion adhesives-Testing of bond strength under specified conditions*

EN 15062, *Adhesives for leather and footwear materials - Solvent-based and dispersion adhesives - Testing ageing of bonds under specified conditions*

EN ISO 868, *Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868)*

EN ISO 10365, *Adhesives - Designation of main failure patterns (ISO 10365)*

EN ISO 19952:2005, *Footwear - Vocabulary (ISO 19952:2005)*

ISO 554, *Standard atmospheres for conditioning and/or testing - Specifications*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923:2005+A1:2008 and EN ISO 19952:2005 and the following apply.

3.1
leather
tanned animal skin, usually free of hair

3.2
footwear materials
natural and synthetic materials which are suitable for footwear manufacture or repair and have adequate wear properties as upper or sole materials

4 Principle

The surfaces of the leathers or the footwear materials used are treated by a method specific to the type of material. Then strips of specified length and width are cut from the treated materials.

The treated surfaces are bonded by an adhesive to test pieces of specified form.

The test pieces are stored under specified conditions and their bond strength is determined under specified conditions.