

# SVENSK STANDARD

## SS-EN 12039:2016

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### **Flexibla tätskikt – Bitumenbaserade tätskikt för tak – Bestämning av skyddsbeläggningens vidhäftning**

### **Flexible sheets for waterproofing – Bitumen sheets for roof waterproofing – Determination of adhesion of granules**

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Denna standard ersätter SS-EN 12039, utgåva 1.

The European Standard EN 12039:2016 has the status of a Swedish Standard. This document contains the official English version of EN 12039:2016.

This standard supersedes the Swedish Standard SS-EN 12039, edition 1.

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EUROPEAN STANDARD

EN 12039

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2016

ICS 91.100.50

Supersedes EN 12039:1999

English Version

## Flexible sheets for waterproofing - Bitumen sheets for roof waterproofing - Determination of adhesion of granules

Feuilles souples d'étanchéité - Feuilles d'étanchéité de toiture bitumineuses - Détermination de l'adhérence des granulats

Abdichtungsbahnen - Bitumenbahnen für Dachabdichtungen - Bestimmung der Bestreuungshaftung

This European Standard was approved by CEN on 20 May 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC 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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (EN 12039:2016) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

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 December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

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

This document supersedes EN 12039:1999.

List of main changes since this new edition:

- a) editorial changes;
- b) replacement of ISO 565 in B.1.2.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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 applies to the apparatus and the test procedure used for the determination of the adhesion of granules to factory made bituminous sheets for roofing. It can also be used in other areas where it is relevant.

## 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 13416:2001, *Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Rules for sampling*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **surface**

upper side of the sheet, as used in situ; which is usually the inside of the roll

### 3.2

#### **granule**

particle which does not pass a sieve as defined in B.1.2

## 4 Principle

The method determines the adhesion of granules during a brushing test under specified conditions. The mass of brushed-off granules is compared to the original mass of granules on a test specimen cut off from the same roll.

## 5 Apparatus

**5.1 Brushing machine**, working automatically to perform outward and return cyclic linear movements between a replaceable brush applied with a force of  $(21,5 \pm 0,5)$  N on the surface of the test specimen, and the test specimen itself. The constant amplitude  $A$  of the relative movement of the axis of the replaceable brush is  $(200 \pm 20)$  mm, and the average displacement speed is such that 50 cycles are achieved within  $(55 \pm 5)$  s. The brushing machine shall include suitable clamps, at least 50 mm wide, to restrain the ends of the specimen.

**5.2 Replaceable brush**, consisting of a block of a suitable material in which 22 holes are drilled as indicated in Figure A.1, with a 4 mm diameter. From each hole, 22 polyamide 66 yarns, diameter 0,80 mm project  $(16 \pm 2)$  mm.

The effective area of the replaceable brush, when loaded, is 80 mm × 25 mm. The effective brushed area  $B$ , as shown in Figure A.2, is  $[(A + 80) \times 25]$  mm<sup>2</sup>.

A single replaceable brush shall be used for a maximum of 100 tests of fewer if yarns are projecting less than 13 mm from a hole.

**5.3 Balance**, accurate to the nearest 0,01 g.