



NSAI
Standards

Irish Standard
I.S. EN 13614:2021

Bitumen and bituminous binders - Determination of adhesivity of bituminous emulsions by water immersion test

I.S. EN 13614:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 13614:2021

Published:

2021-03-31

*This document was published
under the authority of the NSAI
and comes into effect on:*

2021-04-18

ICS number:

75.140

91.100.50

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 13614:2021 is the adopted Irish version of the European Document EN 13614:2021, Bitumen and bituminous binders - Determination of adhesivity of bituminous emulsions by water immersion test

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 13614

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2021

ICS 75.140; 91.100.50

Supersedes EN 13614:2011

English Version

Bitumen and bituminous binders - Determination of adhesivity of bituminous emulsions by water immersion test

Bitumes et liants bitumineux - Détermination de
l'adhésivité des émulsions bitumineuses par l'essai
d'immersion dans l'eau

Bitumen und bitumenhaltige Bindemittel -
Bestimmung des Haftverhaltens von
Bitumenemulsionen bei Wasserlagerung

This European Standard was approved by CEN on 1 March 2021.

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.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 13614:2021 (E)

Contents	Page
European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principle	5
5 Reagents and materials.....	5
6 Apparatus.....	5
7 Sampling.....	6
8 Procedure.....	6
8.1 General.....	6
8.2 Determination of immediate adhesivity.....	6
8.3 Water effect on binder adhesion	7
8.3.1 General.....	7
9 Expression of results.....	7
10 Precision.....	8
11 Test report.....	8
Annex A (informative) Guidance for the marking of coated surface area	9

European foreword

This document (EN 13614:2021) has been prepared by Technical Committee CEN/TC 336 “Bituminous binders”, 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 September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

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 13614:2011.

The main changes with respect to the previous edition are listed below:

- curing and conditioning the coated aggregates within a heat resistant glass dish in the form of a monolayer of materials instead of placing them into a beaker (8.2.4 and 8.3.5);
- making the assessment under water, which can be replaced if dirty, with the help of an appropriate desk lamp (8.2.5 and 8.3.7);
- no requirements for a specific thermometer (6.9) since room temperature can be checked with ordinary means. After drying, aggregates are to be left to cool down to room temperature before starting the test procedure (8.1 and 8.3.1);
- acceptable tolerance on conditioning time (8.3.6) is reduced from ± 4 h to ± 2 h;
- guidance for the marking of covered surface area (Annex A) is improved by complementing the sketches with actual pictures.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 13614:2021 (E)

1 Scope

This document specifies a method for determining the adhesion of a bituminous emulsion coated onto aggregate when immersed in water.

The method considers two different aspects of adhesivity, i.e. immediate adhesivity and water effect on binder adhesion.

The method may be used with a reference aggregate. In that case, it measures the intrinsic adhesion behaviour of a bituminous emulsion. The method may also be used with a specific aggregate as used on a job site.

WARNING — The use of this document may involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 58, *Bitumen and bituminous binders — Sampling bituminous binders*

EN 12594, *Bitumen and bituminous binders — Preparation of test samples*

EN 13043, *Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas*

EN 13808, *Bitumen and bituminous binders — Framework for specifying cationic bituminous emulsions*

EN 1428, *Bitumen and bituminous binders — Determination of water content in bituminous emulsions — Azeotropic distillation method*

EN 1431, *Bitumen and bituminous binders — Determination of residual binder and oil distillate from bitumen emulsions by distillation*

EN 16849, *Bitumen and bituminous binders — Determination of water content in bituminous emulsions — Method using a drying balance*

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696)*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-