



National Standards Authority of Ireland

STANDARD

I.S. EN 13454-1:2004

ICS 01.040.91
91.100.10
91.100.50

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Fax: (01) 807 3838

**BINDERS, COMPOSITE BINDERS AND
FACTORY MADE MIXTURES FOR FLOOR
SCREEDS BASED ON CALCIUM SULFATE -
PART 1: DEFINITIONS AND REQUIREMENTS**

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
November 12, 2004*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2004

Price Code J

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

EN 13454-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2004

ICS 01.040.91; 91.100.10; 91.100.50

English version

Binders, composite binders and factory made mixtures for floor screeds based on calcium sulfate - Part 1: Definitions and requirements

Liants, liants composites et mélanges fabriqués en usine à base de sulfate de calcium pour chapes de sol - Partie 1: Définitions et spécifications

Calciumsulfat-Binder, Calciumsulfat-Compositbinder und Calciumsulfat-Werkmörtel für Estriche - Teil 1: Begriffe und Anforderungen

This European Standard was approved by CEN on 24 June 2004.

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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 13454-1:2004 (E)**Contents**

Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Types of binders and factory made mixtures	6
4.1 Calcium sulfate binders (CAB)	6
4.2 Calcium sulfate composite binders (CAC)	6
4.3 Factory made mixtures (CA)	6
5 Requirements for binders (CAB; CAC).....	7
5.1 General.....	7
5.1.1 Reaction to fire.....	7
5.1.2 Release of regulated substances.....	7
5.2 Content of calcium sulfate (CaSO ₄).....	7
5.3 pH	7
5.4 Setting times	7
5.5 Strength	7
5.6 Shrinkage and swelling.....	8
6 Requirements for factory made mixtures CA	8
6.1 General.....	8
6.2 Reaction to fire.....	8
6.3 Release of regulated substances.....	8
6.4 Water vapour permeability.....	8
6.5 Impact sound insulation	8
6.6 Thermal resistance	9
6.7 Chemical resistance	9
6.8 pH	9
6.9 Consistency.....	9
6.9.1 General.....	9
6.9.2 Flowing mixtures	9
6.9.3 Highly plastic mixtures	9
6.9.4 Stiff mixtures	9
6.10 Working time	9
6.11 Strength	10
6.11.1 Compressive strength	10
6.11.2 Flexural strength.....	10
6.12 Shrinkage and swelling.....	10
6.13 Other characteristics	11
7 Evaluation of conformity.....	11
7.1 General.....	11
7.2 Initial type testing	11
7.3 Factory production control.....	11
7.4 Technical requirements for binders (CAB), composite binders (CAC) and factory made mixtures (CA)	12
8 Designation	12
9 Marking, labelling and packaging	13
9.1 Binders (CAB) and composite binders (CAC)	13
9.2 Factory made mixtures (CA).....	13
10 Conformity criteria and assessment procedure.....	14
10.1 General.....	14

10.2	Statistical conformity criteria	15
10.2.1	General.....	15
10.2.2	Inspection by variables	16
10.2.3	Inspection by attributes	17
10.3	Assessment based on individual results for factory made mixtures	17
10.4	Conformity requirements.....	17
Annex ZA	(informative) Clauses of this European Standard addressing the provisions of the EU	
	Construction Products Directive	19
ZA.1	Scope and relevant characteristics	19
ZA.2	Procedures for attestation of conformity of binders and composite binders based on calcium sulfate	20
ZA.2.1	Systems of attestation of conformity	20
ZA.2.2	EC Certificate and declaration of conformity	23
ZA.3	CE marking and labelling.....	24
	Bibliography	27

EN 13454-1:2004 (E)

Foreword

This document (EN 13454-1:2004) has been prepared by Technical Committee CEN/TC 241 "Gypsum and gypsum based products", 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 March 2005, and conflicting national standards shall be withdrawn at the latest by June 2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document for binders, composite binders and factory made mixtures for floor screeds based on calcium sulfate consists of two parts:

Part 1: Definitions and requirements

Part 2: Test methods

This document specifies binders, composite binders and factory made mixtures where the principal active constituent is calcium sulfate.

The requirements in EN 13454-1 on binders and composite binders are based on the results of tests according to EN 13454-2.

The requirements on factory made mixtures for floor screeds based on calcium sulfate are in accordance with EN 13813.

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.

1 Scope

This document applies to calcium sulfate binders and composite binders made of calcium sulfate used for the manufacture of floor screeds for interior use in buildings. It also includes requirements for factory made mixtures made of calcium sulfate used for the manufacture of floor screeds which are given in EN 13813. This document does not cover the application of floor screeds. Floor screeds made with products covered by this document may contribute to thermal and sound insulation and fire protection of the floor.

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 12086, *Thermal insulating products for building applications - Determination of water vapour transmission properties*.

EN 13454-2:2003, *Binders, composite binders and factory made mixtures for floor screeds based on calcium sulfate - Part 2: Test methods*.

EN 13501-1, *Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests*.

EN 13813:2002, *Screed material and floor screeds - Screed material - Properties and requirements*.

EN 13892-2, *Methods of test for screed materials - Part 2: Determination of flexural and compressive strength*.

EN ISO 140-6, *Acoustics - Measurement of sound insulation in buildings and of building elements - Part 6: Laboratory measurements of impact sound insulation of floors (ISO 140-6:1998)*.

3 Terms and definitions

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

3.1

calcium sulfate constituents

calcium sulfate in its various dehydration phases, for example hemihydrate and anhydrite

3.2

additives

materials added to calcium sulfate binder or mixture by the manufacturer to influence the chemical and/or the physical properties

NOTE Additives are, for example, fillers, pozzolans, pigments and artificial resins

3.3

admixtures

materials added to the binder or mixture in small quantities and which, by chemical or physical action or both, change the properties of the calcium sulfate constituent, e.g. its workability, hardening or setting

NOTE Admixtures are, for example accelerators, retarders and plasticizers

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](#)
-