



NSAI
Standards

Irish Standard
I.S. EN 13055-1:2002

Lightweight aggregates - Part 1: Lightweight aggregates for concrete, mortar and grout

I.S. EN 13055-1:2002

Incorporating amendments/corrigenda/National Annexes issued since publication:

EN 13055-1:2002/AC:2004

I.S. EN 13055-1:2002/NA:2010

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.

<i>This document replaces:</i>	<i>This document is based on:</i> EN 13055-1:2002	<i>Published:</i> 23 August, 2002
This document was published under the authority of the NSAI and comes into effect on: 23 August, 2002		ICS number: 91.100.15
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		

I.S. EN 13055-1:2002

National Foreword

This Irish Standard is the national version of European Standard EN 13055-1 *Lightweight aggregates – Part 1: Lightweight aggregates for concrete, mortar and grout* and includes national annexes that provide additional information and guidance to complement EN 13055-1.

The National Annexes were prepared by Working Group 1 of NSAI Construction Products Standards Committee and subsequently sent for public consultation. The appended National Annexes represent the final agreed text following this public consultation.

Requirements for the intended use of lightweight aggregates and lightweight aggregate fillers are detailed in National Annex NA and National Annex NB of I.S. EN 13055-1, respectively.

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

Compliance with an Irish Standard does not of itself confer immunity from legal obligations.

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

This page is intentionally left BLANK.

English version

Lightweight aggregates - Part 1: Lightweight aggregates for concrete, mortar and grout

Granulats légers - Partie 1: Granulats légers pour bétons et mortiers et coulis

Leichte Gesteinskörnungen - Teil 1: Leichte Gesteinskörnungen für Beton, Mörtel und Einpressmörtel

This corrigendum becomes effective on 26 May 2004 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 26 mai 2004 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 26.Mai 2004 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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

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

EN 13055-1:2002/AC:2004 (E)

English version

1 Scope

Delete the NOTE and substitute with the new NOTE shown below.

"NOTE Aggregates used in construction should comply with all the requirements of this European Standard. As well as familiar and traditional natural and manufactured aggregates Mandate M/125 "Aggregates" included recycled aggregates and some materials from new or unfamiliar sources. Recycled aggregates are included in the standards and new test methods for them are at an advanced stage of preparation. For unfamiliar materials from secondary sources, however, the work on standardisation has only started recently and more time is needed to define clearly the origins and characteristics of these materials. In the meantime such unfamiliar materials when placed on the market as aggregates must comply fully with this standard and national regulations for dangerous substances (see Annex ZA of the standard) depending upon their intended use. Additional characteristics and requirements may be specified on a case by case basis depending upon experience of use of the product, and defined in specific contractual documents."

Figure ZA.1

Delete "as requested" and substitute by "as required" in two places.

Figure ZA.3

Delete "as requested" and substitute by "as required" in two places.

I.S. EN 13055-1:2002

EUROPEAN STANDARD

EN 13055-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2002

ICS 91.100.15

English version

Lightweight aggregates - Part 1: Lightweight aggregates for concrete, mortar and grout

Granulats légers - Partie 1: Granulats légers pour bétons et mortiers

Leichte Gesteinskörnungen - Teil 1: Leichte Gesteinskörnungen für Beton und Mörtel

This European Standard was approved by CEN on 21 March 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, 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

Contents

	page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Physical requirements	6
5 Chemical requirements	8
6 Testing	9
7 Evaluation of conformity	10
8 Designation	11
Annex A (normative) Determination of crushing resistance	12
Annex B (normative) Determination of resistance to disintegration	16
Annex C (normative) Determination of resistance to freezing and thawing of lightweight aggregates	18
Annex D (informative) Guidance on how to convert quantities by mass to quantities by volume	21
Annex E (informative) Guidance on the effects of some chemical constituents of lightweight aggregates on the durability of concrete, mortar and grout in which they are incorporated	22
Annex F (normative) Factory production control	23
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	28

Foreword

This document EN 13055-1:2002 has been prepared by Technical Committee CEN/TC 154 "Aggregates", the secretariat of which is held by BSI.

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 November 2002, and conflicting national standards shall be withdrawn at the latest by June 2004.

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 European Standard forms part of a series of standards for lightweight aggregates, the other part being:

Part 2: Lightweight aggregates for bituminous mixtures and surface treatments and for unbound and bound applications excluding concrete, mortar and grout

Requirements for other types of aggregates will be specified in the following European Standards:

prEN 12620, *Aggregates for concrete*.

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

prEN 13139, *Aggregates for mortar*.

prEN 13242, *Aggregates for unbound and hydraulic bound materials for use in civil engineering work and road construction*.

EN 13383-1, *Armourstone - Part 1: Specification*.

prEN 13450, *Aggregates for railway ballast*.

The annexes A, B, C and F are normative, the annexes D and E are informative.

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

1 Scope

This European Standard specifies the properties of lightweight aggregates and lightweight filler aggregates obtained by processing natural, manufactured or recycled materials and mixtures of these aggregates for use in concrete, mortar and grout in buildings, roads and civil engineering works.

This European Standard covers lightweight aggregates of mineral origin having particle densities not exceeding $2\,000\text{ kg/m}^3$ ($2,00\text{ Mg/m}^3$) or loose bulk densities not exceeding $1\,200\text{ kg/m}^3$ ($1,20\text{ Mg/m}^3$) including:

- a) natural aggregates;
- b) aggregates manufactured from natural materials and/or from by-products of industrial processes;
- c) by-products of industrial processes;
- d) recycled aggregates.

It provides for the evaluation of conformity of the products to this European Standard.

The requirements specified in this standard may not be relevant to all types of lightweight aggregates. For particular applications the requirements and tolerances may be adapted for the end use.

NOTE The requirements in this European Standard are based upon experience with aggregate types with an established pattern of use. Care should be taken when considering the use of aggregates from sources with no such pattern of use, e.g., recycled aggregates and aggregates arising from certain industrial by-products. Such aggregates, which should comply with all the requirements of this European Standard, could have other characteristics not included in Mandate M 125 that do not apply to the generality of aggregate types with an established pattern of use and when required, provisions valid at the place of use can be used to assess their suitability.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 932-1, *Tests for general properties of aggregates — Part 1: Methods for sampling.*

EN 932-2, *Tests for general properties of aggregates — Part 2: Methods for reducing laboratory samples.*

EN 932-5, *Tests for general properties of aggregates — Part 5: Common equipment and calibration.*

EN 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method.*

EN 933-2, *Tests for geometrical properties of aggregates — Part 2: Determination of particle size distribution — Test sieves, nominal size of apertures.*

EN 933-5, *Tests for geometrical properties of aggregates — Part 5: Determination of percentage of crushed and broken surfaces in coarse aggregate particles.*

EN 933-10, *Tests for geometrical properties of aggregates — Part 10: Assessment of fines — Grading of fillers (air jet sieving).*

EN 1097-3, *Tests for mechanical and physical properties of aggregates — Part 3: Determination of loose bulk density and voids.*

EN 1097-5, *Tests for mechanical and physical properties of aggregates — Part 5: Determination of the water content by drying in a ventilated oven.*

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
-