NSAI Standards

Standard Recommendation
S.R. 18:2021

# Guidance on the use of I.S. EN 13139:2002 - Aggregates for mortar

S.R. 18:2021

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# Foreword

This Standard Recommendation (S.R.) is a revision of S.R. 18:2006 and provides recommendations for the application of I.S. EN 13139:2002 in Ireland. I.S. EN 13139:2002 specifies requirements for aggregates used to make mortar and was prepared by Technical Committee CEN/TC 154.

This S.R. is intended to be used in conjunction with I.S. EN 13139:2002.

This S.R. has been prepared under the direction of the Aggregates Panel of the NSAI's Roads Standards Consultative Committee in conjunction with the Masonry Panel of the NSAI's Concrete Standards Consultative Committee.

I.S. EN 13139:2002 takes into account the requirements of the European Commission mandate M/125. Products within the scope of M/125 also fall under the provisions of Regulation (EU) No 305/2011 the Construction Products Regulation (CPR).

Natural aggregates within the scope of I.S. EN 13139:2002 and this S.R. include crushed rock and crushed or uncrushed gravel. Fine aggregate (i.e. aggregate sizes with upper sieve size D ≤ 4mm) may therefore consist of natural sand or crushed rock fines.

S.R. 18:2021 recommends that in Ireland the system of Assessment of Verification of Constancy of Performance (AVCP) for all aggregates under the scope of I.S. EN 13139:2002 and S.R. 18:2021 is System 2+. This recommendation applies from 1st January 2022 to facilitate transition to the AVCP 2+ system for manufacturers.

S.R. 18:2006 and S.R. 18:2021 will co-exist until 1st January 2022 then S.R. 18:2006 and the National Annex to I.S. EN 13139:2002 (I.S. EN13139:2002/NA:2010) will be withdrawn.

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

NOTE Clause numbers, table numbers and annexes refer to this S.R. However, where references are relevant to other documents including I.S. EN 13139:2002, the relevant document for reference is specified, for clarity.

Irish Guidance on other European Standards for aggregates is given in the following documents:

S.R. 21:2014+A1:2016, Guidance on the use of I.S. EN 13242:2002+A1:2007 Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction;

S.R. 16:2016 Guidance on the use of I.S. EN 12620:2002+A1:2008 Aggregates for concrete; and

S.R. 17:2004 Guidance on the use of I.S. EN 13043:2002 Aggregates for bituminous mixtures and surface treatments for roads, airfields and other trafficked areas.

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

## Introduction

I.S. EN 13139:2002 is a framework standard which is used when specifying or declaring requirements for aggregates used to make mortar. It outlines a list of properties and a range of values or categories for these listed properties which are taken into consideration when specifying or declaring requirements for aggregates used to make mortar.

Some of the properties listed in I.S. EN 13139:2002 are mandatory and some are only specified or declared if they are deemed relevant to the aggregate type and/or its end-use, in which case the wording "when required" is used.

This S.R. recommends (in Annex A) properties and associated values/categories which should be selected from I.S. EN 13139:2002 and specified or declared in Ireland for aggregates used for a number of mortar end-uses. This S.R. (in Annex B) provides guidance on the geological and petrographic assessment of the raw material (i.e., the quarry deposit) and of the finished aggregate product for use in mortar.

It also provides interpretation and general guidance on some other requirements of I.S. EN 13139:2002.

Annex C of this S.R. provides a summary of the tasks to be carried out by the Competent Person (Professional Geologist). Annex D of this S.R. gives information on the provisions of the Construction products Regulation (EU) No. 305/2011.

# 1 Scope

This S.R. provides guidance on the use of I.S. EN 13139:2002 in Ireland.

I.S. EN 13139:2002 specifies the properties of aggregates and filler aggregates obtained by processing natural, manufactured or recycled materials and mixtures of these aggregates for use in mortar for buildings, roads and civil engineering works including the following mortar end uses:

a) masonry mortar;

b) floor/screed mortar;

c) surfacing of internal walls (plastering mortar);

d) rendering of external walls;

e) special bedding materials;

f) repair mortar; and

g) grouts.

This S.R. provides guidance only for natural aggregates used to make masonry mortar, plastering/rendering and floor screeds. It does not include guidance with regard to the use of manufactured or recycled aggregates or for special bedding materials, repair mortar or grouts.

NOTE Lightweight aggregates for mortar are covered by I.S. EN 13055-1.

# 2 Terms and definitions

For the purpose of this document the terms and definitions given in I.S. EN 13139:2002 and the following apply:

**Competent Person (Professional Geologist)**
person possessing sufficient training, experience and knowledge appropriate to the nature of the work to be undertaken having regard to the task he or she is required to perform and taking into account the complexity of the work.

Note 1 to entry: In the context of this S.R., the Competent Person will be listed as a professional Member of the Institute of Geologists of Ireland, or an equivalent professional body, with an established record of a minimum of 5 years of practical assessment of geological resources, with experience of quarries and aggregate quarry deposits and assessment of aggregates for proposed end-use suitability.

# 3 Requirements of I.S. EN 13139:2002

## 3.1 General

Each clause in I.S. EN 13139:2002 that specifies requirements for aggregate properties, (i.e. Clause 5 Geometrical requirements, Clause 6 Physical requirements and Clause 7 Chemical requirements), states that only those properties relevant to the aggregate type and/or its end-use are required to be specified or declared.

This S.R. recommends (in Annex A) which properties are relevant for various end-uses and therefore should be specified or declared for those end-uses in Ireland.