Licence to use the Irish Standard Mark

on or in connection with

Concrete: Specification, Performance, Production and Conformity

to indicate conformity to

I.S. EN 206:2013

Roadstone Ltd

Slane
Co. Meath C15 F860

The NSAI, in exercise of the power conferred on it by subsection (1) of Section 21 of the National Standards Authority Act (No. 28 of 1996) hereby grants a licence to use the Irish Standard Mark on or in connection with Concrete - Specification, Performance, Production and Conformity (Consisting of I.S. EN 206:2013 and the Irish National Annex, 2015) to indicate conformity to I.S. EN 206:2013 to the above mentioned company.

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Approved by:
Sean Balfe
Head – Sustainability and the Built Environment, NSAI

Licence Number: 1.63.101
Date of issue: 20 December 2007
Revision date: 04 August 2021
Expiry date: 31 October 2022
This certificate is subject to annual revision

All valid certifications are listed on NSAI's website – www.nsai.ie. The continued validity of this certificate may be verified under "Certified Company Search"

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NSAI Inc. 20 Trafalgar Square, Nashua, New Hampshire, NH 03063, USA T +1 603 882 4412 E: info@nsaiinc.com www.nsaiinc.com

CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL

0050 - CPR - 0883 System 2+

In compliance with the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC, it has been stated that the construction product:

Aggregates in accordance with Annex ZA of the following:

I.S. EN 12620:2002 + A1:2008	***Aggregates for concrete***

Placed on the market by:

Roadstone Ltd
Slane
Co. Meath

And produced in the factory:

Roadstone Ltd
Slane
Co. Meath

is submitted by the manufacturer to the initial type-testing of the product and its factory production control and that the approved body – National Standards Authority of Ireland – has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in Annex ZA of the standards listed above were applied.

This certificate was first issued on 21/12/2018 and remains valid as long as the conditions laid down in the harmonised technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly.

File no: 1.129.115
Approval Date: 21/12/2018
Last amended Date: 04/08/2021
Expiry Date: 31/10/2022

Signed:

Seán Balfe – Director of Sustainability & the Built Environment

Issued By : NSAI, 1 Swift Square, Northwood Business Park, Santry, Dublin 9.

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13

DECLARATION OF PERFORMANCE

Aggregates for use in Concrete and Concrete Masonry Units

Slane

1. **Unique identification code of the product type:**

Code	Description	Category
1571002	20/31.5mm	G_C 85/20
1571034	10/20mm	G_C 85/20
1572009	6.3/14mm	G_C 85/20
1572008	4/10mm	G_C 85/20
1572011	2/6.3mm	G_C 85/20
1570002	0/4mm (CP)	$G_A85/G_{TC}20 – G_F85$

2. **Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4) of the CPR:**
Production details can be traced via dispatch docket.

Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:
I.S. EN 12620: 2013: Aggregates for Concrete .
S.R16: 2016 Guidance on the use of EN 12620

3. **Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):**
Roadstone Ltd.
Fortunestown
Dublin 24

4. Not Applicable

5. **System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:**
System 2+

6. **Notified certification body:**
NSAI (identification No. 050) performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control, and issued the certificate of constancy of conformity of the factory production control.

8. Declared Performance

Characteristic	Declared Performance	Harmonised Technical Specification
Apparent Density	2.70Mg/m3	I.S. EN 1097
S.S. Dry Density	2.73Mg/m3	I.S. EN 1097
Oven Dry Density	2.75Mg/m3	I.S. EN 1097
Fines Content (Coarse)	F4	I.S. EN 933
Fines Content (Fine)	F16	I.S. EN 933
Methylene Blue Value	MB_f10	I.S. EN 933-9
Water Absorption	0.6%	I.S. EN 1097
Percentage crushed and broken	C100/0	I.S. EN 933-5
Resistance to fragmentation	LA_{20}	I.S. EN 1097-2
Resistance to Polishing Wear/Attrition	PSV_{50}	I.S. EN 1097-8
Resistance to Abrasion	AAV_{10}	I.S. EN 1097-8 Annex A
Resistance to Wear	M_{DE} 20	I.S. EN 1097-1
Resistance to freezing and thawing	MS_4	I.S. EN 1367-2
Drying Shrinkage	0.04%	I.S. EN 1367-4
Chloride Content (Water Soluble)	0.001%	I.S. EN 1744-1
Sulphate Content (Acid Soluble)	AS <.2%	I.S. EN 1744-1
Total Sulphur	TS<1%	I.S. EN 1744-1
Flakiness Index (NA 2/6.3mm&0/4mm)	F_{15}	I.S. EN 933-3
Rock Type	Trachyte	

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of Roadstone Ltd.

Signed for and on behalf of the manufacturer by:

Alan Lowe, Senior Technical Manager, Roadstone Ltd.
(Name and Function)

Belgard, 6/01/2020
(Place and Date of Issue)

Alan Lowe
(Signature)

Safety Data Sheet for Ready Mixed (Wet) Concrete

September 2018

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product identifier:
Ready Mixed Concrete.

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Ready Mixed Concrete is used by professionals and consumers in building and construction works, both indoors and outdoors.

1.3 Details of the supplier of the safety data sheet:
Company name:

Roadstone Ltd,

Company address:

Fortunestown,
Tallaght,
Dublin 24.

Telephone: 01 4041400

E-mail of person responsible for Safety Data Sheet

info@roadstone.ie

1.4 Emergency Telephone number:
National Poisons Information Centre Emergency Telephone (NPIC) number:
01 8092166

Emergency telephone number available during office working hours.

For ICF Member *- ICF has notified this product to NPIC on behalf of all members. To use the 'National Poisons Information Centre Emergency Telephone number' in Section 1.4 each member must contact the NPIC and sign and return an Agreement & Indemnity from and pay an annual retainer. Contact NPIC: (01) 8092166.*

2 HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

2.1.1 According to regulation (EC) No. 1272/2008 (CLP)

Hazard Class	Hazard Category	Hazard Statements
Skin corrosive	1	H314: Causes severe skin burns and eye damage
Skin sensitisation	1	H317: May cause an allergic skin reaction
Serious eye damage/eye irritation	3	H318: Causes serious eye damage

2.2 Label elements:
According to Regulation (EC) No. 1272/2008 (CLP) Hazard Pictograms.

or

Signal Word:
Danger.

Hazard Statements:
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H318: Causes serious eye damage

Precautionary statements:

- Contains portland cement.
- P102: Keep out of reach of children.
- P280: Wear protective gloves / protective clothing / eye protection / face protection.
- P305+P351+P338+P310: **IF IN EYES**: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Get medical advice / attention.
- P302+P352+P333+P313: **IF ON SKIN**: Wash with plenty of soap and water. If skin irritation or rash occurs get medical advice / attention.
- Get medical advice / attention **IF YOU FEEL UNWELL**.
- P501 Disposal: Allow to harden and dispose of as concrete waste.
- **INGESTION**: Swallowing small amounts of fresh concrete is unlikely to cause any significant reaction. Larger amounts can cause irritation of the stomach and intestines.

2.3 Other hazards:

- Fresh ready mixed concrete exerts pressure both horizontally and vertically. Movement /collapse of formwork or shuttering etc. is therefore possible if such formwork or shuttering and any falsework or ancillary equipment associated with it is not properly designed and erected.
- Fresh concrete which is not stiff in consistency can support very little weight. Submersion of persons in deep sections of fresh concrete is therefore possible.
- Cutting, drilling or hammering of hardened/dry concrete can create dust. Hardened concrete may be high in silica and can cause respiratory problems, particularly when it is being drilled or cut or sawn if precautionary measures are not taken. Respirable crystalline silica has been associated with the lung disease, Silicosis.
- Unless adequately controlled, cutting, drilling or hammering of hardened/dry concrete can project particles at high velocity with consequent risk of impact damage and/or injury, particularly to exposed areas of the body and eyes.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Not applicable as ready mixed concrete is a mixture, not a substance.

3.2 Mixtures:

Substance	Portland cement
% by weight	5-25%
EC No	266-043-4
CAS No	65997-15-1
CLP Classification	H315, H317, H318, H335

Note: Ready Mixed Concrete is a mixture of cementitious material which may be cement or a mixture of cement with an addition (e.g. Fly ash or Ground Granulated Blast Furnace Slag), fine and course aggregate, water, and admixtures or additives (typically < 1%) which may be added to modify the properties of the fresh or hardened concrete

4 FIRST AID MEASURES

General advice: In all cases seek medical advice if symptoms persist.

4.1 Description of first aid measures:

4.1.1 CONTACT WITH EYES:

- Do not rub eyes to avoid possible cornea damage. Incline head to injured eye, open the eyelid(s) widely and flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 20 minutes to remove all particles.
- Remove contact lenses, if present and easy to do so. Continue rinsing.
- Avoid flushing particles into uninjured eye.
- If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist, preferably an ophthalmologist.

SKIN CONTACT:

- Wash skin with plenty of water. Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-use. Seek medical treatment in all cases of skin irritation (redness, rash, blistering) or burns.

INGESTION:

- Do not induce vomiting.
- If the person is conscious, wash out mouth with water and give plenty of water to drink.
- Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed:

Eyes: Eye contact with wet concrete may cause serious and potentially irreversible injuries.

Skin: Concrete may have an irritating effect on moist skin (due to sweat or humidity) after prolonged contact or may cause contact dermatitis after repeated contact. Prolonged skin contact with wet concrete may cause serious burns because they develop without pain being felt (for example when kneeling in wet concrete even when wearing trousers).

4.3 Indication of any immediate medical attention and special treatment needed:

When contacting a doctor/physician, take this SDS or the product label with you.

If in Eyes: Contact a specialist of occupational medicine or an eye specialist, preferably an ophthalmologist.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Common concretes are not flammable.

5.2 Special hazards arising from the mixture:

Common concretes are non-combustible, non-explosive and will not facilitate or sustain the combustion of other materials.

5.3 Advice for Firefighters:

Common concretes pose no fire-related hazards. If a fire occurs in the vicinity of concrete then general measures for a fire are applicable: Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Wear protective equipment as described under Section 8 (Exposure Controls / Personal Protection) and follow the advice for safe handling and use given under Section 7 (Handling & Storage).

6.1.2 For emergency responders:

Emergency procedures are not required. However, respiratory protection is needed in situations with high dust levels.
Wet cement may collapse if not supported correctly.

6.2 Environmental precautions:

Avoid release to the environment. Do not wash concrete down sewage and drainage systems or into bodies of water (e.g. streams). Large spillages or uncontrolled discharges into watercourses must be alerted to the Environment Protection Agency, County Council or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up:

6.3.1 Collect the spillage in a dry state if possible.

6.3.2

- Clean up wet concrete and place in a container.
- Allow material to dry and solidify before disposal as described under Section 13 (Disposal Considerations).

6.4 Reference to other sections:

See section 8 (Exposure Controls / Personal Protection) and section 13 (Disposal Considerations) for more details.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 Protective Measures:

- Avoid skin and eye contact because contact with wet concrete can cause serious alkali burns and may also cause skin disease by the combination of the wetness, alkalinity and abrasiveness of ready mixed concrete.
- Thoroughly clean and wash all affected areas with soapy water.
- Do not sit or kneel on wet, unhardened concrete without wearing the correct personal protective equipment.
- When concrete enters boots or gloves or saturates clothing, the article should be removed immediately and washed before further use.

7.1.2 Information on General Occupation Hygiene:

Do not handle or store near food and beverages or smoking materials. In dusty environment, wear dust mask and protective goggles. Use protective gloves to avoid skin contact. See section 8 for details on hand protection.

7.2 Conditions for safe storage, including any compatibilities:

Ready-mixed concrete is normally used upon receipt. However, the hardening process of ready mixed concrete can be delayed by the use of additions and/or admixtures, extending the period during which the precautions given in this data sheet should continue to be taken and during which time access by unauthorised persons should be prevented.

7.3 Specific end uses:

No additional information for the specific end uses (see section 1.2, Relevant identified use of the substance or mixture and uses advised against)

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Ingredient	OELV (8 hour TWA)	Legal Reference
Portland Cement	1mg/M^3	Chemical agents CoP 2011

8.2 Exposure controls:

8.2.1 Appropriate Engineering controls:

Not applicable.

8.2.2 Individual protection measures, such as personal protective equipment:

a) **Eye/face Protection:** Goggles or safety glasses should be worn to prevent the product entering the eyes. Goggles or safety glasses should conform to EN 166.

b) Skin Protection:

i. **Hand Protection:** Impermeable gloves must be worn. Gloves should conform to EN 374-3.

ii. **Other:** Footwear (boots and wellingtons) should meet EN ISO 20345:2011, S4 Minimum.

c) **Respiratory Protection:** Not Applicable to wet concrete.

d) **Thermal Hazards:** Not Applicable

8.2.3 Environmental exposure controls:

Water: Do not wash concrete into sewage systems or into bodies of water to avoid high pH.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	Grey, granular paste unless pigmented
Odour	Slight, earthy odour
pH	12
Melting point / Freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	Not applicable
Evaporation point	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower Flammability or explosive limits	Not applicable
Vapour Pressure and density	Not applicable
Relative Density	Above 2.0
Solubility(ies)	Not applicable
Partition coefficient: n-octanol/water	Not applicable as product is an inorganic mixture
Auto-Ignition temperature	Not applicable
Decomposition temperature	Not applicable as no organic peroxide present
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidising Properties	Not applicable

9.2 Other information:

Not applicable.

10 STABILITY AND REACTIVITY

10.1 Reactivity:
Ready mixed concretes will harden into a stable mass that is not reactive in normal environments.

10.2 Chemical stability:
Dry concretes are stable as long as they are properly stored (see Section 7) and compatible with most other building materials. Wet concrete is alkaline and incompatible with acids, with ammonium salts, with aluminium or other non-noble metals.

10.3 Possibility of hazardous reactions:
Not applicable.

10.4 Conditions to avoid:
Not applicable.

10.5 Incompatible materials:
Not applicable.

10.6 Hazardous decomposition products:
Not applicable.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
Not Applicable.

12 ECOLOGICAL INFORMATION

12.1 Toxicity:
Not applicable.

12.2 Persistence and degradability:
Not applicable.

12.3 Bio-accumulative potential:
Not applicable.

12.4 Mobility in soil:
Not applicable.

12.5 Results of PBT and uPvB assessment:
Not applicable.

12.6 Other adverse effects:
None.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:
Alternative uses should be sought for any surplus concrete. Wet concrete waste should be disposed of in accordance with local authority guidance/ regulations. Avoid entry of wet concrete waste into sewage or drainage systems or bodies of water, e.g. streams and rivers.

14 TRANSPORT INFORMATION

Concrete is not covered by the international regulations on the Transport of Dangerous Goods (IMDG, IATA, ADR/RID). No special precautions are needed apart from those mentioned under Section 8.

14.1 UN number:
Not applicable.

14.2 UN proper shipping name:
Not applicable.

14.3 Transport hazard classes:
Not applicable.

14.4 Packing group:
Not applicable.

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user:
Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73778 and the IBC code:
Not applicable.

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
Concrete is a mixture under REACH Regulation (EC) No. 1907/2006 and CLP Regulation (EC) No. 1272/2008 and is not subject to registration.

15.2 Chemical safety assessment:
Not Applicable.

16 OTHER INFORMATION

Safety Data Sheet updated according to Regulation EC No 1907/2006 (REACH) as amended by Regulation (EU) No.2015/830.

Abbreviations and acronyms:

ADR/RID: European agreements on the transport of dangerous goods by roads/railway.
CAS: Chemical abstracts service
OELV: Operational Exposure Limit Value
REACH: Registration, Evaluation and Authorisation of Chemicals.
SDS: Safety Data Sheet
EINECS: European Inventory of Existing Chemical Substances
STOT: Specific Target Organ Toxicity.
PPE: Personal Protective Equipment.

Training advice:

Safe pass training is a legal requirement for all construction workers. Companies must ensure that their workers read, understand and apply the requirements of the SDS and wear and use PPE. PPE must be worn in accordance with the manufacturer's instructions and users must be trained on how to use.

Disclaimer:

The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information. If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. If you are an employer it is your duty to tell your employees and others who may be affected by any hazards described in this sheet and any of the precautions which should be taken. This safety data sheet does not constitute the users own assessment of workplace risk and it is the users sole responsibility to take all necessary precautions when using this product.