



# NSAI

## CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL

0050 - CPR - 0163

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:

**Specification for Masonry Units - Part 3: Aggregate Concrete Masonry Units in accordance with Annex ZA of the following:**

I.S. EN 771-3:2011+A1:2015

Placed on the market by:

**Roadstone Ltd  
Arklow  
Co. Wicklow  
Y14 WF96**

and produced in the factory:

**Roadstone Ltd  
Arklow  
Co. Wicklow  
Y14 WF96**

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 6 December 2013 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.

Signed:

Kevin D. Mullaney – Director of Certification

**File Number:** 1.116.020  
**Approval Date:** 6 December 2013  
**Last Amended Date:** 12 October 2023  
**Expiry Date:** 31 October 2024  
**Issued by:** NSAI, 1 Swift Square, Northwood Business Park, Santry, Dublin 9



# DECLARATION OF PERFORMANCE

## No.B1 Category 1 Aggregate Concrete Masonry Unit – Standard Solid

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
1230002	100mm Solid Standard S7.5	7.5	440	100	215
1230003	140mm Solid Standard S7.5	7.5	440	140	215
1230001	65mm Solid Standard S7.5	7.5	440	65	215
1230004	100mm Solid Standard S13	13.0	440	100	215
1230008	140mm Solid Standard S13	13.0	440	140	215
1230006	100mm Solid Standard S18	18.0	440	100	215
1230005	100mm Solid Standard S24	24.0	440	100	215

Table 1. Production details can be traced via dispatch docket & number on strap

**2. Intended use** -as a **common** masonry unit and internal walls in load bearing or non-load bearing building and civil engineering applications (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

### 3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5)

Roadstone Ltd.  
Fortunestown  
Dublin 24



### 4. N/A

### 5. System of AVCP System 2+


### 6. Harmonised Standard: I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

#### Notified certification body:

National Standards Authority of Ireland (NB 0050) 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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Configuration	Category 1 to EN 1996-1-1 Group 1  Normal Configuration Vertical	<b>I.S. EN 1996-1-1 + NA</b> <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Gross Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1</b> (7.3.2 Air Dry, Mortar Capped) <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p><b>Masonry Conditions/Situations A1 and A2 (Work below or near external ground level) and D (Rendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Classes MX2.1/2.2/3.1:</b> Category 1, Group 1:</p> <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 7.5N/mm<sup>2</sup> or a declared normalised compressive strength of ≥ 10.5 N/mm<sup>2</sup></li> <li>mortar strength class: M4 (A1 / MX2.1/2.2/3.1), M6 (A2 / MX2.2)</li> </ul> <p><b>Masonry Conditions/Situations A3 (Work below or near external ground level) and C1 and C2 (Unrendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Class MX3.2:</b> Category 1, Group 1:</p> <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 13N/mm<sup>2</sup> and a declared normalised compressive strength of ≥ 18 N/mm<sup>2</sup></li> <li>mortar strength class: M12</li> </ul> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b> Masonry Conditions/Situations:</p> <ul style="list-style-type: none"> <li>A1 - Low Risk of Saturation (1) Without Freezing (MX2.1, MX2.2) (2) With Freezing (MX3.1)</li> <li>A2 - High Risk of Saturation Without Freezing (MX2.2)</li> <li>A3 - High Risk of Saturation with Freezing (MX3.2)</li> <li>C1 - Low Risk of Saturation (MX3.1)</li> <li>C2 - High Risk of Saturation (MX3.2)</li> </ul> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b></p> <ul style="list-style-type: none"> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> <p>For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914-1:2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>

Water Absorption due to Capillary Action	$\leq 20 \text{ g}/(\text{m}^2 \cdot \text{s})$ 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above. All strengths: not to be used as a DPM.	<b>I.S. EN 772 – 11</b>
Moisture Movement	< 0.6 mm/m	<b>I.S. EN 772-14</b> Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person) *Annex C.6 of S.R. 325:2013+A2:2018 & Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP
Water Vapour Permeability	5/15 $\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<b>Based on Commission Decision 200/605 EC amending 96/603 EC</b> (Refer to I.S. EN 1996-1-2 National Annex Table NA. 3.1/3.2 & 3.3 for fire ratings of wall constructed with Class A1 Units) *Building Regulations Part B—Fire Safety
Shear Bond Strength	0,15N/mm <sup>2</sup> (Tabulated)	<b>I.S. EN 998-2(Tabulated)</b> *Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

\*Reference to National Provisions / NDP = National Defined Parameter

The performance of the product identified above is in conformity with the declared performance. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, 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, 28/03/2022

(Place and Date of Issue)

*Alan Lowe*

(Signature)



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Roadstone Ltd.  
Fortunestown  
Dublin 24



**Certification Body NSAI 050**  
**RL DoP-B1**

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

**EN 771-3:2011 + A1:2015** Category I, Group 1 Aggregate Concrete Masonry Unit - B1 Standard/Common Solid Block

**Dimensions:** Length (440mm), Width (65mm,100mm,140mm) Height (215mm)

**Dimensional tolerances:** Category: D1

**Configuration:** Group 1 unit to EN 1996-1-1 Vertical

**Compressive strength:** Mean Air-Dry Mortar Capped 7.5N/mm<sup>2</sup>, 13N/mm<sup>2</sup>, 18N/mm<sup>2</sup>, 24N/mm<sup>2</sup> (Refer to Docket)

Code	Description
1230002	100mm Solid Standard S7.5
1230003	140mm Solid Standard S7.5
1230001	65mm Solid Standard S7.5
1230004	100mm Solid Standard S13
1230008	140mm Solid Standard S13
1230006	100mm Solid Standard S18
1230005	100mm Solid Standard S24

**Dimensional stability:** Moisture Movement: 0.6 mm/m

**Shear bond strength:** Fixed value 0.15(N/mm<sup>2</sup>)

**Flexural bond strength:** NPD

**Reaction to fire:** Euroclass A1

**Water absorption:** ≤20g/m<sup>2</sup>s (7.5N, not to be left unrendered in Exposed conditions. Refer to the Durability Below. All strengths: not to be used as a DPM).

**Water vapour diffusion coefficient:** 5/15μ

**Direct airborne sound insulation:** Gross dry density >1900 kg/m<sup>3</sup>

**Thermal conductivity:** 1.01 - 1.19 W/mK (λ10, dry, unit, S1)

**Durability against freeze-thaw:** Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325 :2013+A2:2018

**Refer to DoP Table 8 Declared Performance**

**Dangerous substances:** None

# DECLARATION OF PERFORMANCE

No. B3 Category 1 Aggregate Concrete Masonry Unit – Standard Group 2 Cavity

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)	Shell Side (mm)	Shell End (mm)	Web (mm)
1231005	215mm Twin Pot Cavity H5.0	5.0	440	215	215	38	38	58
1231008	215mm Single Pot Cavity H5.0 Half (Football)	5.0	215	215	215	38	38	-
1231006	215mm Twin Pot Cavity H7.5	7.5	440	215	215	38	38	58
1231016	215mm Single Pot Cavity H7.5 Half (Football)	7.5	215	215	215	38	38	-
1231004	215mm Twin Pot Cavity H13	13	440	140	215	30	30	60
1231007	215mm Single pot Cavity H13 Half (Football)	13	215	215	215	38	38	

Table 1. Production details can be traced via dispatch docket & Number on strap

**2. Intended use** -as common Group 2 masonry unit and internal walls in load bearing or non-load bearing building and civil engineering applications (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

## 3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5):

Roadstone Ltd.  
Fortunestown  
Dublin 24



## 4. N/A

## 5. System of AVCP System 2+

## 6. Harmonised Standard: I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

### 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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance


Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Gross Density	>1200kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1</b> (7.3.2 Air Dry, Mortar Capped) <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry) (215mm cavity Block Thermal resistance 0.210 m <sup>2</sup> K/W)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents A, C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p><b>5N/mm<sup>2</sup> Category 1, Group 2 Not Reference in Table 14 Durability of masonry in finished construction of SR 325</b></p> <p><b>Masonry Conditions/Situations:</b>  <b>D</b> *Rendered external walls, (other than chimneys, capping, copings, parapets, sills).  <b>E</b> Internal walls and inner leaves of cavity, MX1</p> <p><b>J1</b> *Rendered <b>Freestanding boundary and screen walls</b> with coping or capping min. 40mm overhang, <b>Classes</b> MX3.1, MX3.2</p> <p>Category 1, Group 2  <ul style="list-style-type: none"> <li>declared mean compressive strength ≥ 7.5N/mm<sup>2</sup></li> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>D &amp; E mortar strength class: M4</li> <li>J1 mortar strength class: M6</li> </ul> </p> <p>Masonry Conditions/Situations as above D, E, J1 and J2 <b>Freestanding boundary and screen walls with coping or capping min. 40mm overhang Classes</b> MX3.1, MX3.2</p> <p>Category 1, Group 2:  <ul style="list-style-type: none"> <li>declared mean compressive strength ≥ 13N/mm<sup>2</sup></li> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>mortar strength class: M6 or M12 Dependant on design/ Exposure class – as advised by engineers.</li> </ul> </p> <p>Generally, for use in <b>Sheltered/Moderate Exposure</b>, *render system must prevent the passage of moisture to the inside of the building or damage to the fabric of the building including the walls from excessive moisture. To prevent excessive cracking in the render system and masonry external walls, the walls should be designed with adequate movement joints.</p> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b>  Masonry Conditions/Situations:  <ul style="list-style-type: none"> <li>D -* Rendered external walls as in A1</li> <li>E - Internal walls and inner leaves of cavity walls MX1 as in A1</li> <li><b>J1</b> *Rendered <b>Freestanding boundary and screen walls</b> with coping or capping 40mm overhang, <b>Classes</b> MX3.1, MX3.2</li> <li><b>J2 Freestanding boundary and screen walls with cappings 40mm overhang Classes</b> MX3.1, MX3.2</li> </ul> </p> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b>  <ul style="list-style-type: none"> <li>MX1 – In dry conditions</li> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> </p> <p>*For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914-1:2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>

Configuration	Category 1 to EN 1996-1-1 Group 2 Normal Configuration Vertical Use widest web on top for optimum mortar bed	<b>I.S. EN 1996-1-1 + NA</b>  <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Water Absorption due to Capillary Action	$\leq 20 \text{ g}/(\text{m}^2 \cdot \text{s})$ 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above. All strengths: not to be used as a DPM.	<b>I.S. EN 772 – 11</b>
Moisture Movement	$< 0.6 \text{ mm}/\text{m}$	<b>I.S. EN 772-14</b> Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person) <i>*Annex C.6 of S.R. 325:2013+A2:2018 &amp; Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP</i>
Water Vapour Permeability	5/15 $\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<b>Based on Commission Decision 200/605 EC amending 96/603 EC</b> (Refer to I.S. EN 1996-1-2 National Annex Table NA. 3.1/3.2 & 3.3 for fire ratings of wall constructed with Class A1 Units) <i>*Building Regulations Part B—Fire Safety</i>
Shear Bond Strength	0,15N/mm <sup>2</sup> (Tabulated)	<b>I.S. EN 998-2(Tabulated)</b> <i>*Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012</i>
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

**Signed for and on behalf of the manufacturer by:**

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

Belgard, 10/01/2022  
 (Place and Date of Issue)

  
 (Signature)



# DECLARATION OF PERFORMANCE

## No.B4 Category 1 Aggregate Concrete Masonry Unit – Fine Texture Solid

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
1230024	100mm Solid Paint Quality S7.5	7.5	440	100	215
1232007	100mm Solid Fine Texture S7.5	7.5	440	100	215
1232011	65MM Solid Fine Texture S7.5	7.5	440	65	215
1232005	100mm Solid Fine Texture S13	13	440	100	215
1232002	140mm Solid Fine Texture S7.5	7.5	440	140	215

Table 1. Production details can be traced via dispatch docket & number on strap

**2. Intended use** -as a **facing** masonry unit as **internal walls** in load bearing or non-load bearing building and civil engineering applications (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

### 3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5)

Roadstone Ltd.  
Fortunestown  
Dublin 24



### 4. N/A

### 5. System of AVCP System 2+


### 6. Harmonised Standard: I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

#### Notified certification body:

National Standards Authority of Ireland (NB 0050) 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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Configuration	Category 1 to EN 1996-1-1 Group 1  Normal Configuration Vertical	<b>I.S. EN 1996-1-1 + NA</b> <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Gross Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1 (7.3.2 Air Dry, Mortar Capped)</b> <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018</i> <i>Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Not to be used as exposed Masonry – if used in external walls Render exposed faces as per guidance below.</p> <p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p><b>Masonry Conditions/Situations E Internal walls and inner leaves of cavity walls Classes MX1</b> Category 1, Group 1:  <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 7.5N/mm<sup>2</sup> or a declared normalised compressive strength of ≥ 10.5 N/mm<sup>2</sup></li> <li>mortar strength class: M4</li> </ul> </p> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b> Masonry Conditions/Situations: E Internal walls &amp; inner leaves of cavity walls</p> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b></p> <ul style="list-style-type: none"> <li>MX1 – In dry conditions</li> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> <p>For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914 2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>
Water Absorption due to Capillary Action	≤20 g/(m <sup>2</sup> *s) 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above.	<b>I.S. EN 772 – 11</b>

	All strengths: not to be used as a DPM.	
Moisture Movement	< 0.6 mm/m	<p><b>I.S. EN 772-14</b></p> <p>Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person)</p> <p><i>*Annex C.6 of S.R. 325:2013+A2:2018 &amp; Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP</i></p>
Water Vapour Permeability	5/15 $\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<p><b>Based on Commission Decision 200/605 EC amending 96/603 EC</b></p> <p>(Refer to I.S. EN 1996-1-2 National Annex Table NA. 3.1/3.2 &amp; 3.3 for fire ratings of wall constructed with Class A1 Units)</p> <p><i>*Building Regulations Part B—Fire Safety</i></p>
Shear Bond Strength	0,15N/mm <sup>2</sup> (Tabulated)	<p><b>I.S. EN 998-2(Tabulated)</b></p> <p><i>*Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012</i></p>
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

*\*Reference to National Provisions / NDP = National Defined Parameter*

The performance of the product identified above is in conformity with the declared performance. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, 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, 28/03/2022

(Place and Date of Issue)

*Alan Lowe*

(Signature)



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**Roadstone Ltd.**  
**Fortunestown**  
**Dublin 24**



**Certification Body NSAI 050**  
**RL DoP-B1**

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

**EN 771-3:2011 + A1:2015** Category I, Group 1 Aggregate Concrete Masonry Unit

**Dimensions:** Length (440mm), Width (65mm,100mm,140mm) Height (215mm)

**Dimensional tolerances:** Category: D1

**Configuration:** Group 1 unit to EN 1996-1-1 Vertical

**Compressive strength:** Mean Air-Dry Mortar Capped 7.5N/mm<sup>2</sup>, 13N/mm<sup>2</sup>, (Refer to Docket)

Code	Description
1230024	100mm Solid Paint Quality S7.5
1232007	100mm Solid Fine Texture S7.5
1232011	65MM Solid Fine Texture S7.5
1232005	100mm Solid Fine Texture S13
1232002	140mm Solid Fine Texture S7.5

**Dimensional stability:** Moisture Movement: 0.6 mm/m

**Shear bond strength:** Fixed value 0.15(N/mm<sup>2</sup>)

**Flexural bond strength:** NPD

**Reaction to fire:** Euroclass A1

**Water absorption:** ≤20g/m<sup>2</sup>s (7.5N, not to be left unrendered in Exposed conditions. Refer to the Durability Below. All strengths: not to be used as a DPM).

**Water vapour diffusion coefficient:** 5/15μ

**Direct airborne sound insulation:** Gross dry density >1900 kg/m<sup>3</sup>

**Thermal conductivity:** 1.01 - 1.19 W/mK (λ10, dry, unit, S1)

**Durability against freeze-thaw:** Not to be used as exposed Masonry – if used in external walls Render exposed faces as per guidance below. Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325 :2013+A2:2018

**Refer to DoP Table 8 Declared Performance**

**Dangerous substances:** None

# DECLARATION OF PERFORMANCE

No. B3 Category 1 Aggregate Concrete Masonry Unit – Fine Texture Group 2 Cavity

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)	Shell Side (mm)	Shell End (mm)	Web (mm)
1233006	215mm Twin Pot Cavity Fine-Texture H5.0	5.0	440	215	215	38	38	58
1233007 /1233009	215mm Single Pot Cavity Fine-Texture H5.0 Half	5.0	215	215	215	38	38	-
1233008	215mm Twin Pot Cavity Fine-Texture H7.5	7.5	440	215	215	38	38	58
1233015	215mm Single Pot Cavity Fine-Texture H7.5 Half	7.5	215	215	215	38	38	-
1233010	215mm Twin Pot Cavity Fine-Texture H13	13.0	440	215	215	38	38	58
1233018	215mm Single Pot Cavity Fine-Texture H13Half	13.0	215	215	215	38	38	-
1232010	215mm Twin Pot Cavity Fine-Texture H18	18.0	440	215	215	38	38	58
1233012	215mm Single Pot Cavity Fine-Texture H13Half	18.0	215	215	215	38	38	-

Table 1. Production details can be traced via dispatch docket & Number on strap

**2. Intended use** -as Group 2 Facing masonry unit as internal walls in load bearing or non-load bearing building and civil engineering applications and free standing boundary walls in  $\geq 13\text{N/mm}^2$  (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

**3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5):**

Roadstone Ltd.  
Fortunestown  
Dublin 24



**4. N/A**

**5. System of AVCP** System 2+

**6. Harmonised Standard:** I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

**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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -3mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Gross Density	>1200kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1</b> (7.3.2 Air Dry, Mortar Capped) <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry) (215mm cavity Block Thermal resistance 0.210 m <sup>2</sup> K/W)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents A, C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p>5N/mm<sup>2</sup> Category 1, Group 2 Not Reference in Table 14 Durability of masonry in finished construction of SR 325 E Internal walls and inner leaves of cavity, MX1</p> <p><b>Masonry Conditions/Situations:</b> D *Rendered external walls, (other than chimneys, capping, copings, parapets, sills).</p> <p>E Internal walls and inner leaves of cavity, MX1</p> <p>Category 1, Group 2</p> <ul style="list-style-type: none"> <li>declared mean compressive strength ≥ 7.5N/mm<sup>2</sup></li> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>D &amp; E mortar strength class: M4</li> </ul> <p>Masonry Conditions/Situations as above D, E, J1 and J2 <i>Freestanding boundary and screen walls with coping or capping min. 40mm overhang Classes MX3.1, MX3.2</i></p> <p>Category 1, Group 2:</p> <ul style="list-style-type: none"> <li>declared mean compressive strength ≥ 13N/mm<sup>2</sup></li> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>mortar strength class: M6 or M12 Dependant on design/ Exposure class – as advised by engineers.</li> </ul> <p>Generally, for use in <b>Sheltered/Moderate Exposure</b>, *render system must prevent the passage of moisture to the inside of the building or damage to the fabric of the building including the walls from excessive moisture. To prevent excessive cracking in the render system and masonry external walls, the walls should be designed with adequate movement joints.</p> <p>For exposed Blockwork for use in buildings refer to our Masonry range</p> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b> Masonry Conditions/Situations:</p> <ul style="list-style-type: none"> <li>A1 - Low Risk of Saturation (1) Without Freezing (MX2.1, MX2.2) (2) With Freezing (MX3.1)</li> <li>A2 - High Risk of Saturation Without Freezing (MX2.2)</li> <li>A3 - High Risk of Saturation with Freezing (MX3.2)</li> <li>C1 - Low Risk of Saturation (MX3.1) As in A3 (but Group 1 or Group 2 units)</li> <li>C2 - High Risk of Saturation (MX3.2) As in A3 (but Group 1 or Group 2 units)</li> <li>D - Rendered external walls As in A1 (but Group 1 or Group 2 units)</li> <li>E - Internal walls and inner leaves of cavity walls</li> <li>J1 - With coping MX3.1, MX3.2</li> <li>J2 - With capping MX3.1, MX3.2</li> </ul> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b></p> <ul style="list-style-type: none"> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> <p>For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914-1:2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>

Configuration	Category 1 to EN 1996-1-1 Group 2 Normal Configuration Vertical	<b>I.S. EN 1996-1-1 + NA</b>
	Use widest web on top for optimum mortar bed	<i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Water Absorption due to Capillary Action	$\leq 20 \text{ g}/(\text{m}^2 \cdot \text{s})$ 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above. All strengths: not to be used as a DPM.	<b>I.S. EN 772 – 11</b>
Moisture Movement	< 0.6 mm/m	<b>I.S. EN 772-14</b> Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person) <i>*Annex C.6 of S.R. 325:2013+A2:2018 &amp; Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP</i>
Water Vapour Permeability	5/15 $\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<b>Based on Commission Decision 200/605 EC amending 96/603 EC</b> (Refer to I.S. EN 1996-1-2 National Annex Table NA.3.1/3.2 & 3.3 for fire ratings of wall constructed with Class A1 Units) <i>*Building Regulations Part B—Fire Safety</i>
Shear Bond Strength	0,15N/mm <sup>2</sup> (Tabulated)	<b>I.S. EN 998-2(Tabulated)</b> <i>*Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012</i>
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

**Signed for and on behalf of the manufacturer by:**

Alan Lowe, Senior Technical Manager, Roadstone Ltd.

(Name and Function)

Belgard, 10/04/2022

(Place and Date of Issue)

(Signature)



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Roadstone Ltd.  
Fortunestown  
Dublin 24



**Certification Body NSAI 050**  
**RL DoP-B1**

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

**EN 771-3:2011 + A1:2015** Category I, Group 1 Aggregate Concrete Masonry Unit

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)	Shell Side (mm)	Shell End (mm)	Web (mm)
1233006	215mm Twin Pot Cavity Fine-Texture H5.0	5.0	440	215	215	38	38	58
1233007 /1233009	215mm Single Pot Cavity Fine-Texture H5.0 Half	5.0	215	215	215	38	38	-
1233008	215mm Twin Pot Cavity Fine-Texture H7.5	7.5	440	215	215	38	38	58
1233015	215mm Single Pot Cavity Fine-Texture H7.5 Half	7.5	215	215	215	38	38	-
1233010	215mm Twin Pot Cavity Fine-Texture H13	13.0	440	215	215	38	38	58
1233018	215mm Single Pot Cavity Fine-Texture H13Half	13.0	215	215	215	38	38	-
1232010	215mm Twin Pot Cavity Fine-Texture H18	18.0	440	215	215	38	38	58
1233012	215mm Single Pot Cavity Fine-Texture H13Half	18.0	215	215	215	38	38	-

**Dimensions:** Length (440mm), Width (65mm,100mm,140mm) Height (215mm)

**Dimensional tolerances:** Category: D1

**Configuration:** Group 2 unit to EN 1996-1-1 Vertical

**Compressive strength:** Mean Air-Dry Mortar Capped 5N/mm<sup>2</sup>, 13N/mm<sup>2</sup>, 18N/mm<sup>2</sup> (Refer to Docket)

**Dimensional stability:** Moisture Movement: 0.6 mm/m

**Shear bond strength:** Fixed value 0.15(N/mm<sup>2</sup>)

**Flexural bond strength:** NPD

**Reaction to fire:** Euroclass A1

**Water absorption:** ≤20g/m<sup>2</sup>s (7.5N, not to be left unrendered in Exposed conditions. Refer to the Durability Below. All strengths: not to be used as a DPM).

**Water vapour diffusion coefficient:** 5/15μ

**Direct airborne sound insulation:** Gross dry density >1200 kg/m<sup>3</sup> Net Density> 1900 kg/m<sup>3</sup>

**Thermal conductivity:** 1.01 - 1.19 W/mK (λ10, dry, unit, S1) (215mm cavity Block Thermal resistance 0.210 m<sup>2</sup>K/W)

**Durability against freeze-thaw:** Refer to DoP Table 8 Declared Performance 7.5N/mm<sup>2</sup>- E Internal walls and inner leaves of cavity walls, ≥13N/mm<sup>2</sup> C1 & C2 Work above ground level Unrendered external walls (other than chimneys, cappings, copings, parapets, sills), E Internal walls and inner leaves of cavity walls

Refer to - Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325 :2013+A2:2018

**Dangerous substances:** None



# DECLARATION OF PERFORMANCE

## No.B1 Category 1 Aggregate Concrete Masonry Unit – Standard Solid Specials

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
1230016	100mm Cavity Closer Standard S7.5 (Nib-J)	7.5	440	100/150	215
1234003	Filler Block 18N (450 Range)	18.0	215	100	65
1235003	100mm Soapbar Standard S7.5	7.5	440	100	100
1235010	100mm Soapbar Standard S13	13.0	440	100	100
1235004	100mm Cavity Closer Standard S7.5 (L:D&P)	7.5	440	100/150	215
1235005	140mm Soapbar Standard S7.5	7.5	440	100	140
1236001	140mm Soapbar Standard S13	13.0	440	100	140
1235006	65mm Soapbar Standard S7.5	7.5	440	100	65
1230011	65mm Solid Standard S13	13.0	440	215	65
1235007	100mm Cavity Closer Standard S13 (L:D&P)	13.0	440	100/150	215

Table 1. Production details can be traced via dispatch docket & number on strap

**2. Intended use** -as a **common** masonry unit and internal walls in load bearing or non-load bearing building and civil engineering applications (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

### 3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5)

Roadstone Ltd.  
 Fortunestown  
 Dublin 24



### 4. N/A

### 5. System of AVCP System 2+

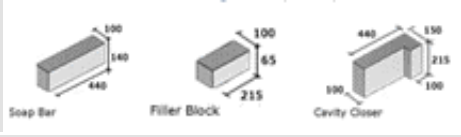
### 6. Harmonised Standard: I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

#### Notified certification body:

National Standards Authority of Ireland (NB 0050) 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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Configuration	Category 1 to EN 1996-1-1 Group 1 Normal Configuration Vertical 	<b>I.S. EN 1996-1-1 + NA</b>  <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Gross Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1</b> (7.3.2 Air Dry, Mortar Capped) <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p><b>Masonry Conditions/Situations A1 and A2 (Work below or near external ground level) and D (Rendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Classes MX2.1/2.2/3.1:</b> Category 1, Group 1:</p> <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 7.5N/mm<sup>2</sup> or a declared normalised compressive strength of ≥ 10.5 N/mm<sup>2</sup></li> <li>mortar strength class: M4 (A1 / MX2.1/2.2/3.1), M6 (A2 / MX2.2)</li> </ul> <p><b>Masonry Conditions/Situations A3 (Work below or near external ground level) and C1 and C2 (Unrendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Class MX3.2:</b> Category 1, Group 1:</p> <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 13N/mm<sup>2</sup> and a declared normalised compressive strength of ≥ 18 N/mm<sup>2</sup></li> <li>mortar strength class: M12</li> </ul> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b> Masonry Conditions/Situations:</p> <ul style="list-style-type: none"> <li>A1 - Low Risk of Saturation (1) Without Freezing (MX2.1, MX2.2) (2) With Freezing (MX3.1)</li> <li>A2 - High Risk of Saturation Without Freezing (MX2.2)</li> <li>A3 - High Risk of Saturation with Freezing (MX3.2)</li> <li>C1 - Low Risk of Saturation (MX3.1)</li> <li>C2 - High Risk of Saturation (MX3.2)</li> </ul> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b></p> <ul style="list-style-type: none"> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> <p>For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914-1:2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>

Water Absorption due to Capillary Action	$\leq 20 \text{ g}/(\text{m}^2 \cdot \text{s})$ 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above. All strengths: not to be used as a DPM.	<b>I.S. EN 772 – 11</b>
Moisture Movement	< 0.6 mm/m	<b>I.S. EN 772-14</b> Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person) *Annex C.6 of S.R. 325:2013+A2:2018 & Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP
Water Vapour Permeability	5/15 $\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<b>Based on Commission Decision 200/605 EC amending 96/603 EC</b> (Refer to I.S. EN 1996-1-2 National Annex Table NA. 3.1/3.2 & 3.3 for fire ratings of wall constructed with Class A1 Units) *Building Regulations Part B—Fire Safety
Shear Bond Strength	0,15N/mm <sup>2</sup> (Tabulated)	<b>I.S. EN 998-2(Tabulated)</b> *Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

\*Reference to National Provisions / NDP = National Defined Parameter

The performance of the product identified above is in conformity with the declared performance. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, 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, 28/03/2022

(Place and Date of Issue)

*Alan Lowe*

(Signature)



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**Roadstone Ltd.**  
**Fortunestown**  
**Dublin 24**



**Certification Body NSAI 050**  
**RL DoP-B1**

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

**EN 771-3:2011 + A1:2015** Category I, Group 1 Aggregate Concrete Masonry Unit

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
1230016	100mm Cavity Closer Standard S7.5 (Nib-J)	7.5	440	100/150	215
1234003	Filler Block 18N (450 Range)	18.0	215	100	65
1235003	100mm Soapbar Standard S7.5	7.5	440	100	100
1235010	100mm Soapbar Standard S13	13.0	440	100	100
1235004	100mm Cavity Closer Standard S7.5 (L:D&P)	7.5	440	100/150	215
1235005	140mm Soapbar Standard S7.5	7.5	440	100	140
1236001	140mm Soapbar Standard S13	13.0	440	100	140
1235006	65mm Soapbar Standard S7.5	7.5	440	100	65
1230011	65mm Solid Standard S13	13.0	440	215	65
1235007	100mm Cavity Closer Standard S13 (L:D&P)	13.0	440	100/150	215

**Dimensions:** Length (440mm), Width (65mm,100mm,140mm) Height (215mm)

**Dimensional tolerances:** Category: D1

**Configuration:** Group 1 unit to EN 1996-1-1 Vertical

**Compressive strength:** Mean Air-Dry Mortar Capped 7.5N/mm<sup>2</sup>, 13N/mm<sup>2</sup>, 18N/mm<sup>2</sup> (Refer to Docket)

**Dimensional stability:** Moisture Movement: 0.6 mm/m

**Shear bond strength:** Fixed value 0.15(N/mm<sup>2</sup>)

**Flexural bond strength:** NPD

**Reaction to fire:** Euroclass A1

**Water absorption:** ≤20g/m<sup>2</sup>s (7.5N, not to be left unrendered in Exposed conditions. Refer to the Durability Below. All strengths: not to be used as a DPM).

**Water vapour diffusion coefficient:** 5/15μ

**Direct airborne sound insulation:** Gross dry density >1900 kg/m<sup>3</sup>

**Thermal conductivity:** 1.01 - 1.19 W/mK (λ10, dry, unit, S1)

**Durability against freeze-thaw:** Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R.

325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325 :2013+A2:2018

**Refer to DoP Table 8 Declared Performance**

**Dangerous substances:** None

# DECLARATION OF PERFORMANCE

No.B12 Category 1 Aggregate Concrete Masonry Unit

Standard Solid Foundation block

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

Code	Description	Strength (N/mm <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
1230050	100mm Solid Standard S13 (300 x 450)	13	440	100	300
1230003	100mm Solid Standard S13 (300 X 350)	13	350	100	300
		Normalized strength 18N/mm <sup>2</sup>			

Table 1. Production details can be traced via dispatch docket & number on strap

**2. Intended use** -as a **common** masonry unit and internal walls in load bearing or non-load bearing building and civil engineering applications (see I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight)) in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 (Design, Preparation and Application of External Rendering and Internal Plastering) and 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6). Generally used as a foundation block or cavity closer

**3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5)**

Roadstone Ltd.  
Fortunestown  
Dublin 24



**4. N/A**

**5. System of AVCP** System 2+

**6. Harmonised Standard:** I.S. EN 771-3 2011 + A1 2015 Aggregate Concrete Masonry Units (Dense and Lightweight)

**Notified certification body:**

National Standards Authority of Ireland (NB 0050) 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.

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

## 7. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	<b>I.S. EN 772-16</b> <i>*Annex C.3 of S.R. 325:2013+A2:2018</i>
Configuration	Category 1 to EN 1996-1-1 Group 1 Test Configuration Vertical	<b>I.S. EN 1996-1-1 + NA</b> <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Gross Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b> <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m <sup>3</sup>	<b>I.S. EN 772-13</b>
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	<b>I.S. EN 772-1 (7.3.2 Air Dry, Mortar Capped)</b> <i>*Annex C.4 and C.5 of S.R.325:2013+A2:2018 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ10, dry)	<b>I.S. EN 1745 Annex A (Tabulated)</b> <i>*Building Reg.—Part L (Cons. of Fuel and Energy)</i>
Durability (freeze/thaw)	<p>Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C &amp; D), Eurocodes, I.S. EN 13914 - 1 &amp; 2: 2016 and S.R. 325:2013+A2:2018</p> <p><b>Masonry Conditions/Situations A3 (Work below or near external ground level) and C1 and C2 (Unrendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Class MX3.2:</b> Category 1, Group 1:</p> <ul style="list-style-type: none"> <li>net density ≥ 1,500 kg/m<sup>3</sup></li> <li>declared mean compressive strength ≥ 13N/mm<sup>2</sup> and a declared normalised compressive strength of ≥ 18 N/mm<sup>2</sup></li> <li>mortar strength class: M6 or M12 to Engineers spec.</li> </ul> <p>When used in rising walls/footings use Annex E SR21 Type T.2 Permeable/free draining backfill, footpath and rendered plinth</p> <p>All masonry units produced with aggregate in accordance with I.S. EN 12620 (Aggregates for concrete) and S.R. 16:2016 (Guidance on the use of I.S. EN 12620, Aggregates for concrete)</p>	<ul style="list-style-type: none"> <li>Irish Building Regulations (including Technical Guidance Documents C &amp; D)</li> <li>Eurocodes</li> <li>I.S. EN 1996-1-1:2005 (Eurocode 6: Design of masonry structures. General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014))</li> <li>I.S. EN 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry (includes Irish National Annex - NA:2010))</li> <li>S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) &amp; Table 14)</li> <li>I.S. EN 13914 - 1 &amp; 2: 2016</li> </ul> <p><b>Table 14 of S.R. 325:2013+A2:2018:</b> Masonry Conditions/Situations:</p> <ul style="list-style-type: none"> <li>A1 - Low Risk of Saturation (1) Without Freezing (MX2.1, MX2.2) (2) With Freezing (MX3.1)</li> <li>A2 - High Risk of Saturation Without Freezing (MX2.2)</li> <li>A3 - High Risk of Saturation with Freezing (MX3.2)</li> <li>C1 - Low Risk of Saturation (MX3.1)</li> <li>C2 - High Risk of Saturation (MX3.2)</li> </ul> <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p><b>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</b></p> <ul style="list-style-type: none"> <li>MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.1 - Exposed to moisture or wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> <li>MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals</li> </ul> <p>For <b>Render</b> (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause 5.5.3.2.1 (Applied external surface finishes), Annex E (Specification for mortar for masonry - I.S. EN 998-1 and 2) and Annex F (National guidance to I.S. EN 13914-1:2016)) and I.S. EN 13914-1:2016 (including Clauses 5 (Materials), 6 (Design considerations) and 7 (Work on site, preparation and application of renderings)). <b>Note:</b> Rendering is affected by the combined action of freeze thaw cycles, wind, sun and rain, and their effects will depend upon the degree of exposure. Durability of render will depend on the correct choice of mix, thickness and number of coats and correct detailing</p>

Water Absorption due to Capillary Action	$\leq 20 \text{ g}/(\text{m}^2 \cdot \text{s})$ 7.5N Not to be left unrendered in Exposed conditions. Refer to the clause Above. All strengths: not to be used as a DPM.	<b>I.S. EN 772 – 11</b>
Moisture Movement	$< 0.6 \text{ mm}/\text{m}$	<b>I.S. EN 772-14</b> Movement joints required at 7 Meter centres as per clause 5.4.3.4 of SR 325 (or as specified by competent person) <i>*Annex C.6 of S.R. 325:2013+A2:2018 &amp; Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP</i>
Water Vapour Permeability	$5/15\mu$	<b>I.S. EN 1745 Annex A(Tabulated)</b>
Reaction to Fire	Class A1	<b>Based on Commission Decision 200/605 EC amending 96/603 EC</b> (Refer to I.S. EN 1996-1-2 National Annex Table NA. 3.1/3.2 & 3.3 for fire ratings of wall constructed with Class A1 Units) <i>*Building Regulations Part B—Fire Safety</i>
Shear Bond Strength	$0,15\text{N}/\text{mm}^2$ (Tabulated)	<b>I.S. EN 998-2(Tabulated)</b> <i>*Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012</i>
Dangerous Substances	None	Cement, Aggregate Water & Admixtures comply with Relevant EN's and National SR's which prohibit the use of Dangerous Substance

*\*Reference to National Provisions / NDP = National Defined Parameter*

The performance of the product identified above is in conformity with the declared performance. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, 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, 28/03/2022

(Place and Date of Issue)

*Alan Lowe*

(Signature)



13

Roadstone Ltd.  
Fortunestown  
Dublin 24



**Certification Body NSAI 050**  
**RL DoP-B1**

Location	FPC Cert No.	Location	FPC Cert No.	Location	FPC Cert No.
Belgard	0050-CPR-165	Huntstown	0050-CPR-176	Castlemine	0050-CPR-0192
Ballyknockane	0050-CPR-0141	Slane	0050-CPR-164	Tullamore	0050-CPR-0185
Bunratty	0050-CPR-0135	Arklow	0050-CPR-163	Laghy	0050-CPR-0183
Classis	0050-CPR-923	Carrigtwohill	0050-CPR-423	Kilmacow	0050-CPR-0216
Killarney	0050-CPR-922	Castlebar	0050-CPR-157	Ryan's	0050-CPR-436
Joseph Hogan's	0050-CPR-346	Galway	0050-CPR-156	Gooig	0050-CPR-138
Mallow	0050-CPR-137				

**EN 771-3:2011 + A1:2015** Category I, Group 1 Aggregate Concrete Masonry Unit - Foundation Block

**Dimensions:** Length (440mm or 350 ), Width (,100mm), Height (300mm)

**Dimensional tolerances:** Category: D1

**Configuration:** Group 1 unit to EN 1996-1-1 Vertical

**Compressive strength:** Mean Air-Dry Mortar Capped 13N/mm<sup>2</sup> (Normalized strength 18N/mm<sup>2</sup> (equiv. 100mm cube strength))

Code	Description
1230050	100mm Solid Standard S13 (300 x 450)
1230003	100mm Solid Standard S13 (300 X 350)

**Dimensional stability:** Moisture Movement: 0.6 mm/m

**Shear bond strength:** Fixed value 0.15(N/mm<sup>2</sup>)

**Flexural bond strength:** NPD

**Reaction to fire:** Euroclass A1

**Water absorption:** ≤20g/m<sup>2</sup>s (7.5N, not to be left unrendered in Exposed conditions. Refer to the Durability Below. All strengths: not to be used as a DPM).

**Water vapour diffusion coefficient:** 5/15μ

**Direct airborne sound insulation:** Gross dry density >1900 kg/m<sup>3</sup>

**Thermal conductivity:** 1.01 - 1.19 W/mK (λ10, dry, unit, S1)

**Durability against freeze-thaw:** Masonry Conditions/Situations A3 (Work below or near external ground level) and C1 and C2 (Unrendered external walls (other than chimneys, cappings, copings, parapets, sills)) – Class MX3.2:

Masonry Conditions/Situations in Table 14 (Durability of masonry in finished construction) of S.R. 325:2013+A2:2018 and used in accordance with Irish Building Regulations (including Technical Guidance Documents C & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325 :2013+A2:2018

**Refer to DoP Table 8 Declared Performance**

**Dangerous substances:** None




# Roadstone Ltd.

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Web: [www.roadstone.ie](http://www.roadstone.ie)



## Material Safety Data Sheet – Dense Aggregate Concrete Blocks

<p>1. (a) <b>Identification of Product</b></p> <p>Concrete Blocks for use in walling.</p> <p>(b) <b>Name of Company</b> Roadstone Dublin Ltd. Fortunestown, Dublin 24.</p> <p><b>Phone</b> (01) 4041200</p> <p>(c) <b>Application</b></p> <p>Use of Concrete Blocks should be in accordance with the relevant National / European Union codes of practice.</p> <p>2. <b>Composition of Ingredients</b></p> <p>Concrete blocks are a mixture of natural aggregates, cement and water. Admixtures may be added to modify the properties of the finished product.</p> <p>3. <b>Hazard Identification</b></p> <p>3.1 Concrete blocks are abrasive and typically weigh 20 to 30kg each, depending on shape and density and should be handled accordingly.</p> <p>3.2 Bales of concrete blocks may contain up to 96 blocks and can weigh up to 2.0 tonnes, depending on size, quantity and bale configuration.</p> <p>3.3 Strapping is only designed to facilitate handling during manufacture and should not be relied upon to provide stability of bales during transport, site</p>	<p>handling or storage. Strapping is sharp and tensioned and can cause injury when removing or otherwise handling it.</p> <p>3.4 Cutting, drilling or hammering of concrete blocks can create dust. If inhaled in excessive quantities over extended periods, respirable dust can constitute a long-term hazard. Cutting, drilling or hammering of concrete blocks, unless adequately controlled, can project particles at high velocity with consequent risk of impact damage and/or injury particularly to exposed areas of the body and eyes.</p> <p>4. <b>First Aid Measures</b></p> <p>First Aid treatment is as follows:</p> <p>4.1 <b>Eye Contact</b></p> <p>Immediately rinse under running water and seek medical advice.</p> <p>4.2 <b>Cuts/Abrasions</b></p> <p>Cuts/abrasions from concrete blocks should be cleaned and treated using the normal First-Aid method. Wounds must receive prompt medical attention.</p> <p>In all cases of doubt or where symptoms persist medical advice must be obtained.</p> 
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### DISCLAIMER

This Material Safety Data Sheet has been prepared by the Irish Concrete Federation in consultation with its members and with technical assistance from the Industry's Safety Committee. Every care has been taken to ensure that the information contained herein is correct and accurate at the date of publication. However, the Irish Concrete Federation Ltd cannot accept any responsibility or liability for any errors, inaccuracies or omissions which may have occurred inadvertently.

5. **Fire Fighting Measures**

Not applicable.

Wear appropriate respiratory protection when cutting, drilling or hammering concrete blocks.

6. **Accidental Release Measures**

6.1 Avoid contact with skin.

8.5 **Footwear**

Wear footwear with protective toecaps when working with concrete blocks.

6.2 Tidy up debris from broken blocks.

7. **Handling & Storage**

8.6 **Head Protection**

7.1 Protect skin when handling concrete blocks.

Head protection to be worn with risk of falling blocks e.g. between stacks, elevated platforms, edges, etc.

7.2 Use suitable handling & transport equipment when handling bales of blocks.

9. **Physical & Chemical Properties**

Concrete blocks are usually grey in colour. The product is abrasive.

7.3 Before lifting always size up the load. Always follow safe lifting and manual handling procedures.

10. **Stability & Reactivity**

Ensure integrity and stability of bales whilst stored on site.

7.4 Ensure adequate load-bearing capacity of ground, floors or platforms when placing or storing bales of blocks on site.

7.5 Bales of blocks can become unstable over time and should not be stacked to excessive heights.

11. **Toxicological Information**

Not applicable.

8. **Exposure Controls/Personal Protection**

12. **Ecological Information**

Concrete blocks have no ecological effects.

8.1 **Hand Protection**

Wear suitable protective gloves.

13. **Disposal Considerations**

Concrete blocks may be recycled or placed in approved licensed landfill site.

8.2 **Skin Protection**

Avoid block and strap contact with skin as this can cause cuts and abrasions.

14. **Transport Information**

Ensure security and safety of load at all times.

8.3 **Eye Protection**

Wear goggles to prevent eye contact from flying particles when cutting, drilling or hammering concrete blocks, or from breaking straps.

15. **Regulatory Information**

Not applicable.

16. **Other Information**

None.

8.4 **Masks**

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