

DECLARATION OF PERFORMANCE

No.B12 Category 1 Aggregate Concrete Masonry Unit – Standard Solid

1. Unique identification code of the product type:

Code	Description	Strength (N/mm ²)	Length (mm)	Width (mm)	Height (mm)
4	100mm Solid Standards	7.5	440	100	215
4F	100mm Fine Texture	7.5	440	100	215
4/10N	100mm Solid Standards	10	440	100	215
6	140mm Solid Standards	7.5	440	140	215

Table 1. Production details can be traced via dispatch docket

2. **Intended use** - common, or exposed masonry or 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)**

4. McGraths Limestone (Cong) Ltd. Cregaree, Cong, Claremorris. Co. Mayo F31 W425



5. N/A

6. **System of AVCP** System 2+

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

Notified certification body: if other – provide info and NB number

National Standards Authority of Ireland (NB 0050) 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.
Cong	0050-CPR-0145

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Doc Originator	D. Hughes	
Doc Approver	P. McGrath	26 August 2022

8. Declared Performance

Characteristic	Declared Performance	Technical Specification
Dimensional Tolerance	D1 (+3mm, -5mm)	I.S. EN 772-16 <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	I.S. EN 1996-1-1 + NA <i>*Annex C.5 of S.R. 325:2013+A2:2018</i>
Gross Density	>1900kg/m ³	I.S. EN 772-13 <i>*Building Regulation—Part E (Sound)NDP</i>
Net Density	>1900kg/m ³	I.S. EN 772-13
Compressive Strength (Mean)	As shown in Table 1 above, in vertical orientation	I.S. EN 772-1 (7.3.2 Air Dry, Mortar Capped) <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)	I.S. EN 1745 Annex A (Tabulated) <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 & D), Eurocodes, I.S. EN 13914 - 1 & 2: 2016 and S.R. 325:2013+A2:2018</p> <p>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: Category 1, Group 1:</p> <ul style="list-style-type: none"> net density ≥ 1,500 kg/m³ declared mean compressive strength ≥ 7.5N/mm² or a declared normalised compressive strength of ≥ 10.5 N/mm² mortar strength class: M4 (A1 / MX2.1/2.2/3.1), M6 (A2 / MX2.2) <p>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: Category 1, Group 1:</p> <ul style="list-style-type: none"> net density ≥ 1,500 kg/m³ declared mean compressive strength ≥ 13N/mm² and a declared normalised compressive strength of ≥ 18 N/mm² mortar strength class: M12 <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"> Irish Building Regulations (including Technical Guidance Documents C & D) Eurocodes 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)) 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)) S.R. 325:2013+A2:2018 (including Clause 5.5 (Exclusion of moisture), Clause 5.6 (Durability) & Table 14) I.S. EN 13914 - 1 & 2: 2016 <p>Table 14 of S.R. 325:2013+A2:2018: Masonry Conditions/Situations:</p> <ul style="list-style-type: none"> A1 - Low Risk of Saturation (1) Without Freezing (MX2.1, MX2.2) (2) With Freezing (MX3.1) A2 - High Risk of Saturation Without Freezing (MX2.2) A3 - High Risk of Saturation with Freezing (MX3.2) C1 - Low Risk of Saturation (MX3.1) C2 - High Risk of Saturation (MX3.2) <p>See masonry mortar strength classes in Table NA.3 of National Annex in I.S. EN 1996-1-1:2005</p> <p>Table A.1 (Classification of micro conditions of exposure of completed masonry) of I.S. EN 1996-2:2006:</p> <ul style="list-style-type: none"> MX2.1 - Exposed to moisture but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals MX2.2 - Exposed to severe wetting but not exposed to freeze/thaw cycling or external sources of significant levels of sulfates or aggressive chemicals 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 MX3.2 - Exposed to severe wetting and freeze/thaw cycling but not exposed to external sources of significant levels of sulfates or aggressive chemicals <p>For Render (including mix, thickness and number of coats), see S.R. 325:2013+A2:2018 (including Clause</p>

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		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)). Note: 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
Water Absorption due to Capillary Action	13 g/(m ² *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.	I.S. EN 772 – 11
Moisture Movement	< 0.6 mm/m	I.S. EN 772-14 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 & Table NA.6 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012 NDP</i>
Water Vapour Permeability	5/15μ	I.S. EN 1745 Annex A(Tabulated)
Reaction to Fire	Class A1	Based on Commission Decision 200/605 EC amending 96/603 EC (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 ² (Tabulated)	I.S. EN 998-2(Tabulated) <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:



Pat McGrath
Quality Control Manager
McGraths Limestone (Cong) Ltd.

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