



DECLARATION OF PERFORMANCE

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)
BM3Solid	65mm/3" SOLID BLOCK	7.5	440	65	215
BM4Solid	100mm/ 4" SOLID BLOCK	7.5	440	100	215
BM4Solid13 N	100mm/4" SOLID BLOCK (13N)	13.0	440	100	215
BM6Solid	140mm/6" SOLID BLOCK	7.5	440	140	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)

Kilcarrig Quarries
Bagenalstown
Co. Carlow,



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.
Bagenalstown	0050-CPR-0234

7. 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>
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 Building Regulations - Part A (Structure) NDP</i>
Thermal Conductivity	1.01 - 1.19 W/mK (λ_{10} , 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: • net density $\geq 1,500 \text{ kg/m}^3$ • declared mean compressive strength $\geq 7.5 \text{ N/mm}^2$ or a declared normalised compressive strength of $\geq 10.5 \text{ N/mm}^2$ • mortar strength class: M4 (A1 / MX2.1/2.2/3.1), M6 (A2 / MX2.2)</p> <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: • net density $\geq 1,500 \text{ kg/m}^3$ • declared mean compressive strength $\geq 13 \text{ N/mm}^2$ and a declared normalised compressive strength of $\geq 18 \text{ N/mm}^2$ • mortar strength class: M12</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"> • 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: • 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> <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: • 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> <p>For Render (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)). 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</p>

		choice of mix, thickness and number of coats and correct detailing
Configuration	Category 1 to EN 1996-1-1 Group 1  Normal Configuration Vertical	I.S. EN 1996-1-1 + NA *Annex C.5 of S.R> 325:2013+A2:2018
Water Absorption due to Capillary Action	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) *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 μ	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) *Building Regulations Part B—Fire Safety
Shear Bond Strength	0,15N/mm ² (Tabulated)	I.S. EN 998-2(Tabulated) *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 Kilcarrig Quarries Ltd

Signed for and on behalf of the manufacturer by:

Robert Reddy, Quality Manager
(Name and Function)



(Signature)

Bagenalstown, 02/08/2022
(Place and Date of Issue)



Kilcarrig Quarries
Bagenalstown
Co. Carlow



Certification Body NSAI 050

Location	FPC Cert No:
Bagenalstown	0050-CPR-0234

EN 771-3:2011 + A1:2015 Category I, Group 1 Aggregate Concrete Masonry Unit – 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/mm², 13N/mm², 18N/mm², 24N/mm² (Refer to Docket)

Code	Description
BM3Solid	65MM/3" Solid Block
BM4Solid	100mm/4" Solid Block
BM4Solid13N	100mm/4" Solid Block (13N)
BM6Solid	140mm/6" Solid Block

Dimensional stability: Moisture Movement: 0.6 mm/m

Shear bond strength: Fixed value 0.15(N/mm²)

Flexural bond strength: NPD

Reaction to fire: Euroclass A1

Water absorption: ≤20g/m²s (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/m³

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 7 Declared Performance

Dangerous substances: None

Refer to DOP No. 111



NSAI

CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL

0050 - CPR – 0234

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:

Aggregate Concrete Masonry Units in accordance with Annex ZA of the following:

I.S. EN 771-3	Specification for masonry units – Part 3: Aggregate concrete masonry units (dense and lightweight aggregates)
---------------	---

Placed on the market by:

Kilcarrig Quarries Ltd
Bagnesitown
Co. Carlow

And produced in the factory:

Kilcarrig Quarries Ltd
Bagnesitown
Co. Carlow

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 11/05/2022 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:



Seán Balfe – Director of Sustainability & the Built Environment

File no: 1.116.046HQ

Approval Date: 11/05/2022

Last amended Date: 11/05/2022

Expiry Date: 10/05/2023

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