AIRCRETE THERMAL BLOCKS - DECLARATION OF PERFORMANCE

DOP Ref: Mannok Aircrete Seven – 100

1. Unique Identification code of Product type

QLB7001 – Mannok Aircrete Seven - 100

2. Intended use or uses of the product, in accordance with the applicable harmonised technical specification

Common masonry unit for use as external walls, or as internal walls, in load bearing or non-load bearing building and civil engineering applications.

3. Name and registered address of manufacturer

Mannok Build Ltd, 187 Ballyconnell Rd, Derrylin, Co. Fermanagh, Northern Ireland, BT92 9GP

4. Where applicable, name and contact address of the authorised representative whose mandate covers tasks specified in Article 12(2)

Not Applicable

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

System 2+

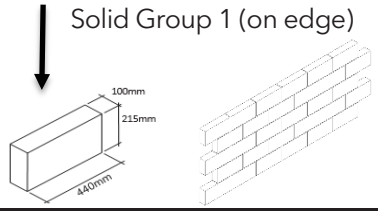
6. Harmonised standard

I.S. EN 771-4:2011 A1:2015 Specification for Masonry Units. Autoclaved aerated concrete masonry units.

7. Notified Body

The notified product certification body, NSAI (Notified Body reference no. 0050) has performed the initial inspection of the manufacturing plant and of factory production control, the continuous surveillance, assessment and evaluation of factory production control before placing the product on the market under system 2+ and issued the certificate of constancy of performance.

8. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. The declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

Essential Characteristics		Performance	Technical Specification
Dimensions	Length	440(-5/+3) mm	I.S. EN 772-16
	Width	100(-3/+3) mm	
	Height	215(-5/+3) mm	
	Tolerances	GPLM	I.S. EN 772-16 I.S. EN 771-4
Configuration (Direction of Loading)		Solid Group 1 (on edge) 	I.S. EN 1996-1-1:2005+A1:2012
Compressive Strength	Mean Value	7.5 N/mm^2	Surface Preparation to I.S. EN 772-1, 7.2.4 Conditioning to I.S. EN 772-1, 7.3.3(b) or 7.3.4 Building Regulations Part A - Structure
	Direction of Load	Perpendicular to bed faces	Annex C.4 of S.R. 325:2013+A2:2018 I.S. EN 1996-1-1:2005+A1:2012
	Unit Category	Category I	I.S. EN 771-4
Dimensional Stability/Moisture Movement		0.4 mm/m	I.S. EN 680 I.S. EN 1996-1-1:2005+A1:2012
Shear Bond Strength N/mm^2		0.15	Annex C I.S. EN 998-2 (Tabulated)
Flexural Bond Strength N/mm^2		NPD	N/A
Reaction to Fire		Class A1	I.S. EN 1996-1-2 Building Regulations Part B – Fire Safety
Water Absorption g/m^{2}s$^{0.5}$		NPD (Not to be left exposed)	N/A
Water Vapour Diffusion coefficient μ		5/10	I.S. EN 1745 (Tabulated Value)
Durability against freeze thaw		**Masonry conditions suitability as per Table 14 of S.R 325:2013+A2:2018 and Table 15 of PD 6697:2019** **Condition A1 with exposure classes MX1, MX2.1, MX2.2, MX3.1 & MX3.2** Category 1, Group 1 • Declared mean compressive strength ≥7.5N/mm^2 • Dry Density ≥400Kg/m^3	**Building Regulations and associated Technical Guidance Documents** **Eurocodes**: • I.S. EN 1996-1-1:2005+A1:2012 Eurocode 6: Design of masonry structures, General rules for reinforced and unreinforced masonry structures

	• Mortar strength M4 **Condition A2 with exposure class MX2.2** Category 1, Group 1 • Declared mean compressive strength ≥7.5 N/mm^2 • Dry Density ≥400Kg/m^3 • Mortar strength M4 or M6 **Condition A3 with exposure class MX3.2** Category 1, Group 1 • Declared mean compressive strength ≥7.5 N/mm^2 • Dry Density ≥400Kg/m^3 • Mortar strength M6	• SR 325:2013+A2:2018 Recommendations for the design of masonry structures in Ireland to Eurocode 6 • PD6697:2019 Recommendations for the design of masonry structures to I.S EN 1996-1-1 and I.S. EN 1996-2 • I.S. 1996-2:2006 (Eurocode 6: Design of masonry structures. Design considerations, selection of materials and execution of masonry **I.S. EN 13914 – 1&2:2016** **I.S. EN 1996-2:2006:** **Table B.1 – Acceptable specifications of masonry units for durability** **Table B. – Acceptable specifications of mortars for durability** **Table A.1 (Classification of micro conditions of exposure of completed masonry)** • **MX1** – In a dry environment. • **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 by 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. **Examples of masonry in each condition:** • **MX2.1** – Internal masonry exposed to high levels of water vapour, such as in a laundry. Masonry exterior walls sheltered by

		overhanging eaves or coping, not exposed to severe driving rain or frost. Masonry below frost zone in well drained non-aggressive soil. • **MX2.2** – Masonry not exposed to frost or aggressive chemicals, located: in interior walls with capping's or flush eaves; in parapets; in freestanding walls; in the ground; under water. • **MX3.1** – Masonry as in class MX2.1 exposed to freeze/thaw cycling. • **MX3.2** – Masonry as in class MX2.2 exposed to freeze/thaw cycling.
Gross Dry Density Kg/m^3	760	I.S. EN 772-13
Net Dry Density kg/m^3	760	
Thermal Conductivity W/m. k	0.17 (λ10,dry)	I.S. EN 1745 Annex A (Tabulated) Building Regulations Part L
Dangerous Substances	See footnote	
Note: Information on dangerous substances will only be given when and where required in the appropriate form. See Annex ZA.3 of I.S. EN 771-4:2011 + A1:2015		

Dara O'Reilly
CEO
12th November 2024

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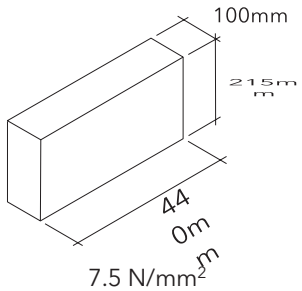
9GP 0050-CPR-1317

I.S. EN 771-4:2011+A1:2015
Aircrete Seven Thermal Block – 7.5
(440X100X215) Solid - Category 1

Dimensions	Declared Value	(L x W x H) 440mm, 100mm, 215mm
Dimensional Tolerances	Declared Category	GPLM
Configuration	Declared	Solid Group 1 unit to I.S. EN 1996-1-1
		
Compressive Strength	Characteristic	7.5 N/mm^2
Dimensional Stability Moisture Movement	Declared Value	0.4 mm/m
Bond Strength Shear Bond Strength Flexural Bond Strength	Declared Value Declared Value	0.15 N/mm^2 (I.S. EN 998-2) (Tabulated Value) NPD
Reaction to Fire	Declared Class	A1 (I.S. EN 1996-1-1 Annex A) (Tabulated Value)
Water Absorption	Declared Value	NPD
Water Vapour Permeability	Declared Value	5/10μ (I.S EN 1745 Annex A) (Tabulated Value)
Direct Airborne Sound Insultation Gross dry density	Declared	760 kg/m^3
Thermal Conductivity	Declared Value	0.17 W/m.K (λ10,dry Mat)(I.S. EN 1745 Annex A) (Tabulated Value)
Durability against Freeze / Thaw	Declared	Refer to Declaration of Performance
Dangerous Substances	Declared	Information on dangerous substances will only be given when and where required in the appropriate form. See annex ZA.3 of I.S. EN 771-4:2011