



AGGREGATE CONCRETE BLOCKS - DECLARATION OF PERFORMANCE

DOP Ref: Aggregate Concrete Block (GPLM) – 10.4 (440X100X215) Solid

1. Unique Identification code of Product type

4301 - Aggregate Concrete Block (GPLM) – 10.4 (440x100x215) Solid

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

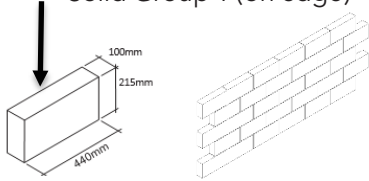
IS EN 771-3:2011 A1:2015 Specification for Masonry Units. Autoclaved aerated concrete masonry units

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 mm	I.S. EN 772-16 Annex C.2 of S.R. 325:2013+A2:2018
	Width	100 mm	
	Height	215 mm	
	Tolerances	GPLM/D1	I.S. EN 772-16 Annex C.3 of S.R. 325:2013+A2:2018
Configuration (Direction of Loading)		Solid Group 1 (on edge) 	I.S. EN 1996-1-1 Annex C.5 of S.R. 325:2013+A2:2018
Compressive Strength	Mean Value	10.4 N/mm ²	Surface Preparation to I.S. EN 772-1, 7.2.4 or 7.2.5 Conditioning to I.S. EN 772-1, 7.3.2(a) or 7.3.5 Annex C.4 & C.5 of S.R. 325:2013+A2:2018 TGD A (Structure)
	Direction of Load	Perpendicular to bed faces	Annex C.4 of S.R. 325:2013+A2:2018
	Unit Category	Category I	I.S. EN 771-3
Dimensional Stability/Moisture Movement		0.6 mm/m	Annex C.6 of S.R. 325:2013+A2:2018
Shear Bond Strength N/mm ²		0.15	Annex C I.S EN 998-2 (Tabulated)
Flexural Bond Strength N/mm ²		NPD	Table NA.5 of NA:2010+A1:2014 to I.S. EN 1996-1-1:2005+A1:2012
Reaction to Fire		Euroclass A1	I.S. EN 1996-1-2 National Annex Table NA.3.1, .3.2, and 3.3 Building Regulations Part B - Fire Safety
Water Absorption g/m ² s ^{0.5}		NPD	Section 5.5 of S.R. 325
Water Vapour Diffusion coefficient μ		5/10	I.S EN 1745 (Tabulated Value)
Durability against freeze thaw		Masonry conditions A1 and A2 of Table 14 of S.R 325:2013+A2:2018: Classes MX1, MX2.1, MX2.2 & MX3.1 Category 1, Group 1: <ul style="list-style-type: none"> • Net density $\geq 1500 \text{Kg/m}^3$ • Declared mean compressive strength $\geq 7.5 \text{N/mm}^2$ or a 	Irish Building Regulations and the relevant Technical Guidance Documents Eurocodes: <ul style="list-style-type: none"> • I.S. EN 1996-1-1:2005 (Eurocode 6: Design of

	<p>declared normalized compressive strength of $\geq 10.5 \text{ N/mm}^2$</p> <ul style="list-style-type: none"> Mortar strength class: M4 for Condition A1 and M6 for Condition A2 <p>Acceptable specifications of masonry units for durability as in Annex B of EN 1996-2:2006 Annex B, Tables B.1 & B.2:</p> <p>Classes MX2.1, MX2.2:</p> <ul style="list-style-type: none"> Any with mortar suitable to Moderate or Severe exposure. <p>Class MX3.1</p> <ul style="list-style-type: none"> Freeze Thaw resistant with mortar suitable for use in Moderate or Severe exposure. <p>Class MX3.2</p> <ul style="list-style-type: none"> Freeze Thaw resistant with mortar suitable for use in Severe exposure. <p>All masonry units produced with aggregates in accordance with EN 12620(Aggregates for concrete) and S.R. 16:2016(Guidance on the use of I.S EN 12620)</p>	<p>masonry structures, General rules for reinforced and unreinforced masonry structures (+A1:2012) (including Irish National Annex +A1:2014).</p> <ul style="list-style-type: none"> 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) - Table A.1 and B.1 <p>I.S. EN 13914 - 1&2:2016 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"> 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. <p>Examples of masonry in each condition:</p> <ul style="list-style-type: none"> MX1 - Interior of buildings for normal habitation and for offices, including the inner leaf of external cavity walls not likely to become damp. 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
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		<p>rain or frost. Masonry below frost zone in well drained non-aggressive soil.</p> <ul style="list-style-type: none"> • MX2.2 - Masonry not exposed to frost or aggressive chemicals, located: in interior walls with cappings 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	1900 (+/- 50)	I.S. EN 772-13
Net Density kg/m ³	1900 (+/- 50)	Building Regulation Part E - Sound
Thermal Conductivity W/m.k	1.11 (λ10,dry)	I.S. EN 1745 Annex A (Tabulated) Building Regulations Part L
Dangerous Substances	See footnote	
<p>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 771-3:2011 + A1:2015</p>		

Signed on behalf of the company:

Kevin Maguire
Quality Manager



June 2023

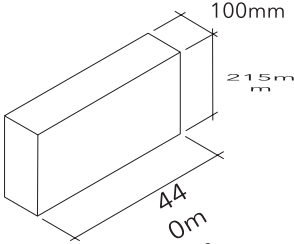


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187 Ballyconnell Road, Derrylin,
Co. Fermanagh, Northern Ireland, BT92
9GP 0050-CPR-0971

I.S. EN 771-3:2011+A1:2015
Aggregate Concrete Block (GPLM) - 10.4
(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
		
Compressive Strength	Characteristic	10.4 N/mm ²
Dimensional Stability Moisture Movement	Declared Value	0.6 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	Euroclass 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 Insulation Gross dry density	Declared	1900 kg/m ³
Thermal Conductivity	Declared Value	1.11 W/mK (λ10, dry Mat)(I.S. EN 1745 Annex A) (Tabulated Value)
Durability against Freeze / Thaw	Declared	NPD (not left to be exposed)
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 771-3:2011