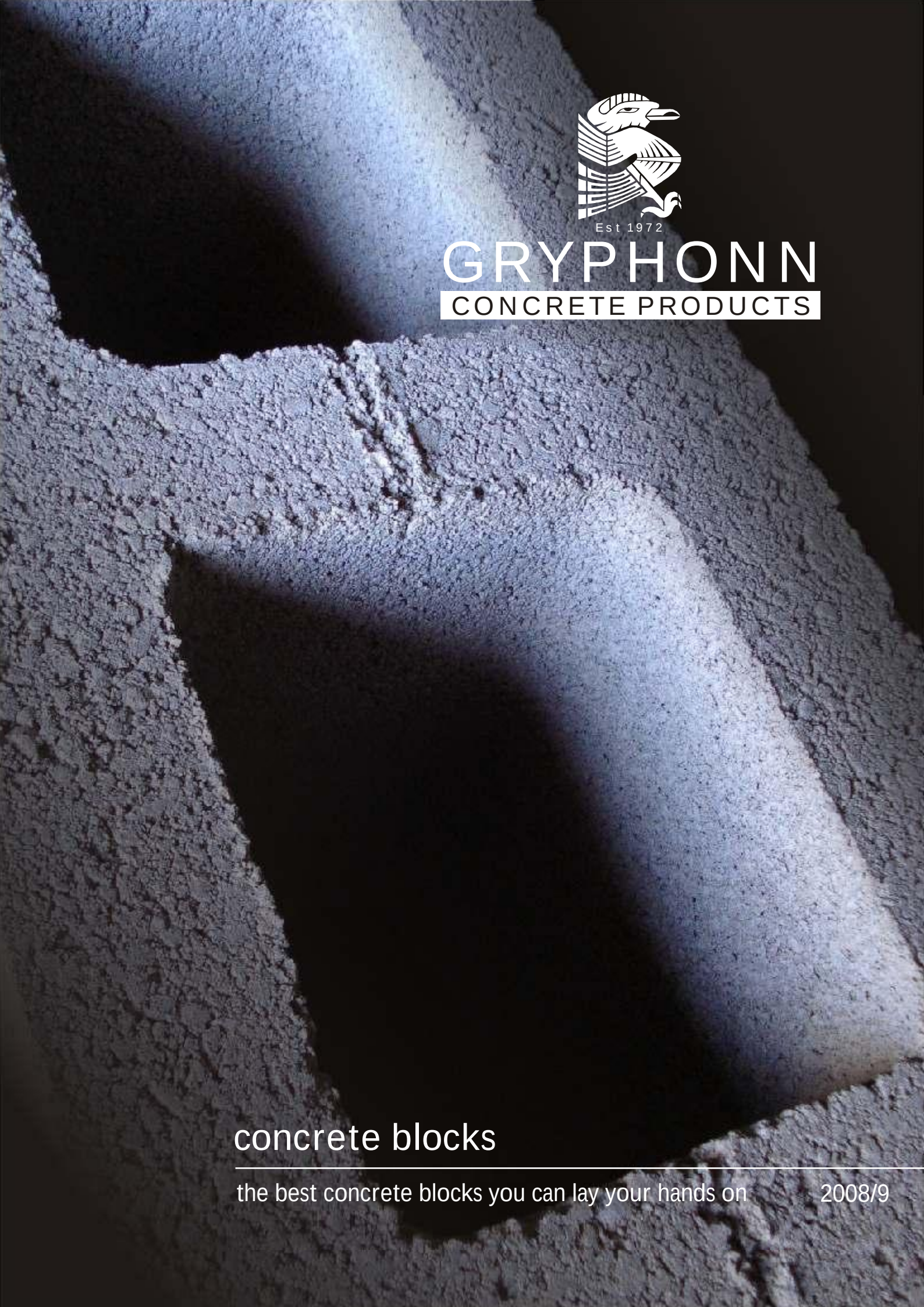

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GRYPHONN

CONCRETE PRODUCTS

concrete blocks

the best concrete blocks you can lay your hands on 2008/9

Gryphonn Concrete Products was established in 1972 and is now a major supplier of precast concrete building products in South Wales. We have developed a comprehensive range of building blocks which are suitable for most applications in the construction and civil engineering industry for loadbearing and non-loadbearing situations. Production is achieved with modern highly automated systems that embrace modern techniques and technology thus enabling us to provide excellent quality at competitve prices.

Gryphonn Concrete Products manufacture its entire product range under a quality assurance scheme complying with BS EN ISO : 9001 : 2000. All block products comply with the provisions of BS EN 771 - 3 : 2003.

This brochure illustrates the range of blocks available:

SOLID BLOCKS. These are voidless blocks, as the name suggests and contains no formed holes or cavities.

HOLLOW BLOCKS. These blocks have cavities which penetrate the block from the top (all the way through to the bottom face).

The range comprises of three basic categories:

DENSE AGGREGATE STANDARD QUALITY BLOCKS

MEDIUM DENSITY STANDARD QUALITY BLOCKS

LIGHTWEIGHT STANDARD QUALITY BLOCKS

* IN ADDITION THE ABOVE CATEGORIES ARE ALSO PRODUCED IN PAINTGRADE QUALITY

Tables 1 to 3 overleaf illustrate the basic types of blocks and give appropriate dimensions and properties.

Construction & Workmanship Considerations

HANDLING & STORAGE
All blocks are unloaded by mechanical off loading lorries. Care must be exercised to minimise soiling, chipping and breakage at all times and products should be stocked on suitably prepared level and clean hard standing surfaces.

Protect all unused blocks from frost, rain and adverse site conditions and ensure that they are covered in such a way as to allow free circulation of air through the stock piles.

MORTAR
In the absence of a specific mortar mix we recommend the adoption of the specifications given in BS EN 998-2 : 2003. Our recommendation for a good average mix design would be mortar design (iii) Further information on the correct choice of mortar for use in various locations and different conditions of exposure is given in BRE Digest number 945..

MOVEMENT & CONTROL JOINTS
Movement joints are used to eliminate or control cracking within the wall. The joints should be located at junctions which may be vulnerable to cracking. The following are areas where control joints may be necessary: Further detailed information is available in BS 5628 : Part 1.

(i) Straight walls should be limited to approximately 6 metres, with movement joints between panels. The effects of end restraint should be assessed when deciding on the panel length, since this could reduce the spacing of the joints. The length of each panel should not normally exceed twice the height.

(ii) Changes of height, thickness and profile (either on plan or section)

(iii) Adjacent to openings

(iv) Junctions with intersecting walls or columns

(v) Positions where the walls are penetrated by major services or large chases.

Bed joint reinforcement (parallel wire type) can be used to increase joint spacing. As an alternative to movement joints adjacent to openings, bed joint reinforcement can be used in two courses above and below (if appropriate) and extending a minimum of 60mm beyond the opening limits.

CONTINUED ON BACK COVER

Dense Concrete Blocks FACE DIMENSIONS: 440 x 215mm

Thickness (mm)	Form	Paint grade	Metres per pack	Approx density (Kg/m3)	Approx weight (Kg)	Standard strength (N/mm2)	Approx drying shrinkage (1%)	λ (W/mK) at 3%m.c	λ (W/mK) at 5%m.c	R (m^2K/W) at 3%m.c	R (m^2K/W) at 5%m.c	Approx built weight (Kg/m2)	Notional fire resistance (HRS)	Sound reduction value (dB)
75	S	*	8.8	1975	14	7.3	0.025	1.10	1.20	0.066	0.063	151	N/A	52
100	S	✓	7.2	1975	19	7.3 / 15	0.025	1.10	1.20	0.088	0.083	199	2	54
140	S	✓	4.8	1975	26	7.3	0.025	1.10	1.20	0.124	0.117	280	3	57
	H	*	6.0	1375	18	7.3	0.025	1.10	1.20	0.194	0.183	253	2	56
150	S	*	4.8	1975	28	7.3	0.025	1.10	1.20	0.133	0.125	299	6	58
190	S	*	4.0	1975	36	7.3	0.025	1.10	1.20	0.168	0.158	379	6	60
215	S	*	3.2	1975	40	7.3	0.025	1.10	1.20	0.190	0.179	425	6	61
	H	*	4.0	1375	28	7.3	0.025	1.10	1.20	0.234	0.220	338	2	59

*** TO ORDER ONLY**

SUITABLE FOR USE
Further information refer to BS 5628 : Part 1 : 2005 Code of Practice for the structure use of masonry.

BLOCK COMPOSITION
Dense concrete blocks are manufactured using graded crushed limestone aggregates complying with BS EN 12620 : 2002 along with a Portland cement binder.

STRENGTHS
Our range of standard quality dense concrete blocks are available from stock with a minimum average compressive strength of 7.3N/mm^2. Higher strengths of 10.4N/mm^2, 15N/mm^2 and 21N/mm^2 are available but would generally require to be specially ordered.

It should be noted that the higher strength blocks could vary slightly in colour and texture along with a marginal increase in block weight and density.

Further information on high strength dense concrete blocks is available from our sales department.

THERMAL PROPERTIES
The thermal resistance (m^2K/W) of the various dense concrete blocks is tabulated to provide component values that can be combined with similar information on other components forming external wall construction thus enabling the calculation and comparison of the overall thermal conductivity of different constructional solutions. The K values (W/mK) are based on the standard values for concrete blocks given in the CIBSE guide A : Environmental Design.

MOISTURE MOVEMENT
Drying shrinkage will not exceed the limiting values specified in BS EN 772-14 : 2002 when measured in accordance with that specification. Drying shrinkage may not occur if the product is used in permanently damp conditions.

BUILT IN WEIGHT
The figures given are for single leaf construction excluding wall finishes.

NOTIONAL PERIODS OF FIRE RESISTANCE
Figures given above are for load bearing single leaf, unplastered construction. Dense concrete blocks are non combustible and conform to Class 0 rating for the surface spread of flame. For further information refer to BS 5628 : Part 3 : 2005.

PAINTGRADE QUALITY
In addition to our standard quality dense concrete blocks range, we have available a range of blocks manufactured for the purpose of receiving direct decoration systems. This block should not be used for rendered finishes and it should be noted that it is not intended for fair faced work as the product may be subject to shade and texture variations.

The general properties of this range of blocks is as given for standard quality dense concrete blocks.

BRICKETTES
Dense concrete brickettes are available for use in areas of block work where closure or coursing details are required to be carried out in similar density materials.

Brickettes enable this work to be accomplished neatly and provides the sensible alternative to cutting full blocks.

Dense Concrete Brickettes

Size	Form	No/Pack	Approx weight (Kg)
100 x 215 x 65	No frogs or holes	416	2.7

Medium Density Concrete Blocks FACE DIMENSIONS: 440 x 215mm

Thickness (mm)	Form	Paint grade	Metres per pack	Approx density (Kg/m3)	Approx weight (Kg)	Standard strength (N/mm2)	Approx drying shrinkage (1%)	λ (W/mK) at 3%m.c	λ (W/mK) at 5%m.c	R (m^2K/W) at 3%m.c	R (m^2K/W) at 5%m.c	Approx built weight (Kg/m2)	Notional fire resistance (HRS)	Sound reduction value (dB)
75	S	*	11.0	1350/1400	9.93	7.3	0.035	0.48	N/A	0.153	N/A	108	N/A	49
100	S	✓	9.0	1350/1400	13.25	3.6 / 7.3	0.035	0.48	N/A	0.205	N/A	145	2	51
140	S	✓	6.0	1350/1400	18.55	7.3	0.035	0.48	N/A	0.286	N/A	202	3	54
	H	*	6.0	950/1000	12.90	7.3	0.035	0.48	N/A	0.331	N/A	141	2	51
150	S	*	6.0	1350/1400	19.85	7.3	0.035	0.48	N/A	0.306	N/A	216	6	55
190	S	*	5.0	1350/1400	25.15	7.3	0.035	0.48	N/A	0.388	N/A	273	6	57
215	S	*	4.0	1350/1400	28.47	7.3	0.035	0.48	N/A	0.439	N/A	309	6	58
	H	*	4.0	950/1000	19.85	7.3	0.035	0.48	N/A	0.427	N/A	216	2	55

* **TO ORDER ONLY**

SUITABLE FOR USE
Further information refer to BS 5628 : Part 1 : 2005 Code of Practice for the structure use of masonry.

RECYCLED

BLOCK COMPOSITION
Medium density blocks are manufactured using more than 75% by volume of recycled by-product material from the generating and steel making processes. The properties of the aggregates used by Gryphonn Concrete Products in this range of blocks are strictly in accordance with relevant British Standards BS EN : 13055-1 : 2002 & BS EN : 1744 -1 : 1998.

STRENGTHS
Standard quality medium density blocks are available from stock with a minimum average compressive strength of 3.6N/mm^2 and 7.3N/mm^2. Higher strengths of 10.4N/mm2 are available but would generally require to be specially ordered.

It should be noted that the higher strength blocks could vary slightly in colour and texture along with a marginal increase in block weight and density.

Further information on high strength dense concrete blocks is available from our sales department.

THERMAL PROPERTIES
The thermal resistance (m^2K/W) of the various medium density concrete blocks is tabulated to provide component values that can be combined with similar information on other components forming external wall construction thus enabling the calculation and comparison of the overall thermal conductivity of different constructional solutions. The K values (W/mK) are based on the standard values of lightweight blocks given in the CIBSE guide A : Environmental Design.

MOISTURE MOVEMENT
Drying shrinkage will not exceed the limiting values specified in BS EN 772-14 : 2002 when measured in accordance with that specification. Drying shrinkage may not occur if the product is used in permanently damp conditions.

BUILT IN WEIGHT
The figures given are for single leaf construction excluding wall finishes.

NOTIONAL PERIODS OF FIRE RESISTANCE
Figures given above are for load bearing single leaf, unplastered construction. Medium density blocks are non combustible and conform to Class 0 rating for the surface spread of flame. For further information refer to BS 5628 : Part 3 : 2005.

PAINTGRADE QUALITY
In addition to our standard quality medium density blocks range, we have available a range of blocks manufactured for the purpose of receiving direct decoration systems. This block should not be used for rendered finishes and it should be noted that it is not intended for fair faced work as the product may be subject to shade and texture variations.

The general properties of this range of blocks is as given for standard quality medium density blocks.

BRICKETTES
Medium density brickettes are available for use in areas of block work where closure or coursing details are required to be carried out in similar density materials.

Brickettes enable this work to be accomplished neatly and provides the sensible alternative to cutting full blocks.

Medium Density Concrete Brickettes

Size	Form	No/Pack	Approx weight (Kg)
100 x 215 x 65	No frogs or holes	416	2.1

Lightweight Concrete Blocks FACE DIMENSIONS: 440 x 215mm

Thickness (mm)	Form	Paint grade	Metres per pack	Approx density (Kg/m^3)	Approx weight (Kg)	Standard strength (N/mm^2)	Approx drying shrinkage (1%)	λ (W/mK) at 3%m.c	λ (W/mK) at 5%m.c	R (m^{2}K/W) at 3%m.c	R (m^{2}K/W) at 5%m.c	Approx built weight (Kg/m^2)	Notional fire resistance (HRS)	Sound reduction value (dB)
75	S	*	11.0	950/1000	6.92	7.3	0.045	0.285	N/A	0.268	N/A	78	N/A	46
100	S	*	9.0	950/1000	9.25	3.6 / 7.3	0.045	0.285	N/A	0.357	N/A	104	2	48
140	S	*	6.0	950/1000	12.91	7.3	0.045	0.285	N/A	0.491	N/A	145	3	51
	H	*	6.0	670	9.0	3.6	0.045	0.285	N/A	0.461	N/A	102	2	48
150	S	*	6.0	950/1000	13.84	7.3	0.045	0.285	N/A	0.534	N/A	156	6	52
190	S	*	5.0	950/1000	17.52	7.3	0.045	0.285	N/A	0.679	N/A	197	6	54
215	S	*	4.0	950/1000	19.83	7.3	0.045	0.285	N/A	0.768	N/A	223	6	55
	H	*	4.0	670	14.0	3.6	0.045	0.285	N/A	0.637	N/A	159	2	52

*** TO ORDER ONLY**

SUITABLE FOR USE
Further information refer to BS 5628 : Part 1 : 2005 Code of Practice for the structure use of masonry.

BLOCK COMPOSITION
Lightweight building blocks are manufactured using crushed and graded volcanic pumice. The material fully complies with the requirements of BS EN 13055 : Part 1 & BS EN 1744 : Part 1. The binder is generally ordinary Portland cement or a proprietary rapid hardening Portland cement.

STRENGTHS
Standard quality lightweight blocks are available from stock with a minimum average compressive strength of 3.6N/mm^2 . Higher strengths of 7.3N/mm2 are available, but to order only. Further information on high strength lightweight blocks is available from our sales department.

THERMAL PROPERTIES
The thermal resistance (m^{2}K/W) of the various lightweight blocks is tabulated to provide component values that can be combined with similar information on other components forming external wall construction thus enabling the calculation and comparison of the overall thermal conductivity of different constructional solutions. The K values (W/mK) are based on the standard values of lightweight blocks given in the CIBSE guide A : Environmental Design.

MOISTURE MOVEMENT
Drying shrinkage will not exceed the limiting values specified in BS EN : 772-14 : 2002 when measured in accordance with that specification. Drying shrinkage may not occur if the product is used in permanently damp conditions.

BUILT IN WEIGHT
The figures given are for single leaf construction excluding wall finishes.

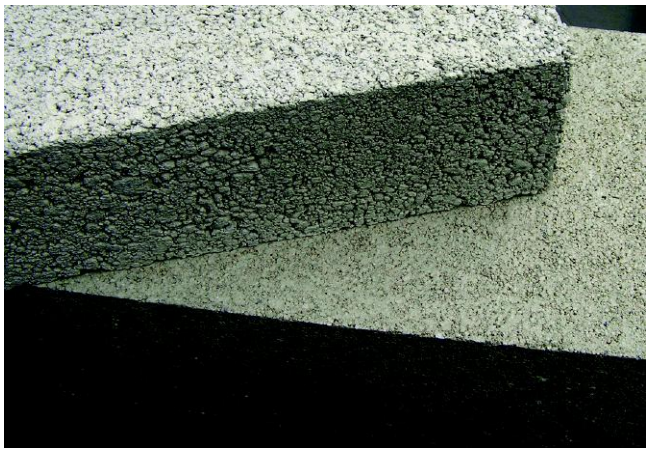
NOTIONAL PERIODS OF FIRE RESISTANCE
Figures given above are for load bearing single leaf, unplastered construction. Lightweight concrete blocks are non combustible and conform to Class 0 rating for the surface spread of flame. For further information refer to BS 5628 : Part 3 : 2005.

PAINTGRADE QUALITY
In addition to our standard quality lightweight blocks range, we have available a range of blocks manufactured for the purpose of receiving direct decoration systems. This block should not be used for rendered finishes and it should be noted that it is not intended for fair faced work as the product may be subject to shade and texture variations.

The general properties of this range of blocks is as given for standard quality lightweight blocks.

BRICKETTES
Lightweight brickettes are available for use in areas of block work where closure or coursing details are required to be carried out in similar density materials.

Brickettes enable this work to be accomplished neatly and provides the sensible alternative to cutting full blocks.



Lightweight Concrete Brickettes

Size	Form	No/Pack	Approx weight (Kg)
100 x 215 x 65	No frogs or holes	416	1.9

BEARINGS
Gryphonn blocks are suitable to carry timber joints or concrete beams direct, where standard domestic loading is being applied. Any bearing should be for the full width of the block. Specific loading situations should be checked by a qualified engineer.

CHASING
All chasing cuts should be clean and formed, using a rotary disc saw. Chasing depths should not exceed the following:- Vertical chasing - 1/3 rd block thickness, Horizontal chasing - 1/6 th block thickness.

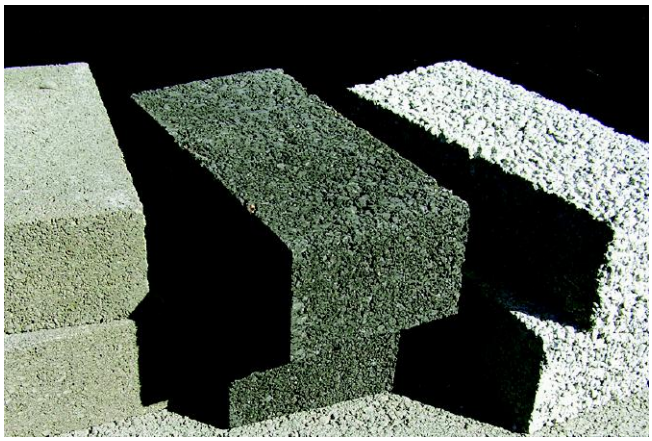
FIXING
The Gryphonn blocks will take a cut nail or plug and screw. If excessive loading is anticipated the fixing manufacturer should be consulted.

JOIST HANGERS
Joist hangers should be used according to the manufacturer's recommendations, with the type of hanger suitable for load, size of section and type of block.

PLASTERING
Internal plastering may be applied to blockwork walls for specific design purposes, to improve fire resistance and/or to provide increased sound attenuation. BS EN : 13914-2 : 2005 "Code of practice for internal plastering" should be consulted for details.

RENDERING
Can be applied to any type of concrete block walling in order to provide a specific appearance, increase weather protection in exposed situations and increase the performance of a wall with respect to noise transmission. BS EN 13914-1 : 2005 "Code of practice for external rendered finishes" should be referred to and the general points made above with respect to plastering are equally applicable to the application of render.

FOR FURTHER TECHNICAL INFORMATION
TELEPHONE: 01495 232056



GRYPHONN
CONCRETE PRODUCTS

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Email: salessupport@gryphonn.co.uk

Ordering & Delivery

Gryphonn Concrete Products is committed to ensuring the highest levels of customer services and make every effort to deliver the products within the time scale requested by the customer. To enable us to maintain the level of satisfaction which we must provide it will be helpful to consider the following matters when discussing your requirements and hopefully your orders.

DELIVERY
Gryphonn Concrete Products can be delivered throughout the UK on self unloading vehicles. For load size details please contact the sales office.

When requesting a delivery please quote the reference from the order acknowledgement and also provide your own particular order reference number where necessary.

PACKAGING
Blocks are packaged into standard bundles or standardised cubes-unwrapped. The pack or cube size will depend on the block type density. If required packs can be shrink wrapped, palletised and strapped as necessary by arrangement.

Every care is taken to ensure that damage does not occur during loading and transit. To further this objective, blocks should be stored on site on level dry ground in covered but ventilated stacks.

Gryphonn Concrete blocks are subject to quality control tests at each stage of the production process to ensure consistent high quality.

Although every care is taken we cannot guarantee that there will be no colour variation in our standard quality blocks and would suggest that blocks be taken from various cubes when laying to reduce the possibility of banding.

TOLERANCES
All stated sizes and dimensions herein are nominal and subject to manufacturing tolerances BS EN : 771-3 : 2002.

ORDERING
When telephoning your enquiry please give your address including county.

Blocks are normally priced in square metres (m2). The number per pack is based on the particular size of product required. Brickettes for coursing etc. are generally priced per thousand. Orders must be placed through our sales office on 01495 227331 giving the following information with your order:

- Quantity
- Size regarding the three work size dimensions
- Compressive strength
- Product type ie. dense, medium or lightweight, standard or paintgrade texture
- Full delivery details including a call back telephone number if possible

The Company has a policy of continuous improvement and product development. Therefore information contained in this literature is subject to alteration without notice.

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