



CONCRETE BLOCKS

1. IDENTIFICATION and AUTHORITY

CPI Concrete Blocks are Normal Density Blocks and comply with IS 20: Part 1: 1987.

CPI Concrete Blocks are manufactured using Normal Portland Cement which complies with IS 1, and naturally occurring aggregates which comply with IS 5. Colouring pigments, where used, conform to BS 1014.

Concrete blocks should be used in accordance with IS 325: Part 1: 1986.

2. DESCRIPTION

1 CPI Concrete Block Types

Standard Blocks - Blocks suitable for general building work offering excellent performance, durability and good fixings. In addition to their loadbearing capabilities, they provide an excellent background for plastering and rendering.

High Strength Blocks - Where higher loadbearing performance is required High Strength Blocks are available in strengths up to 30 N/mm². CPI High Strength Blocks are colour coded in accordance with the requirements of IS 20.

Fine Textured Blocks - These blocks are manufactured for non-rendered applications where shape and texture consistency are of prime importance. They provide an excellent background for painting, if required.








High Strength Blocks in Fine Textured Finish can be manufactured to special order.

Special Blocks - CPI Concrete Blocks are available in a range of special shapes which give extra flexibility to the designer:

- Cavity Closer / L-Block
- Soap Bar
- Filler Block
- Half Hollow Block / Football
- Lintel block / U-Block

CPI Concrete Block Dimensions and Strengths

BLOCK DIMENSIONS

BLOCK TYPE	Work Sizes*			Average Weight kg	No. Per Tonne approx.	Number Per Square Metre	
	L mm	H mm	T mm			on edge	on flat
 SOLID BLOCK	440	215	65	12	80	10	30
	440	215	100	19	50	10	20
 CAVITY CLOSER	440	215	T1 100	21	50	10	-
			T2 150				
 SOAP BAR	440	100	100	9	110	20	-
 FILLER BLOCK	215	65	100	3	330		60
 HOLLOW BLOCK	440	215	215	24	40	10	-
 HALF HOLLOW BLOCK	215	215	215	12	80	20	-
 LINTEL BLOCK	215	215	215	10	100	20	-

* To obtain co-ordinating dimensions add 10mm to the height and length of the block to represent nominal joint sizes.

BLOCK STRENGTHS

BLOCK TYPE		Grade	Compressive Strength N/mm ²	Colour Coding*
STANDARD	SOLID**	S5	5	NATURAL
	HOLLOW	H3	3	NATURAL
HIGH STRENGTH	SOLID	S10	10	RED
		S15	15	GREEN
		S20	20	BLACK
		S30	30	YELLOW
HOLLOW		H10	10	RED

*All CPI High strength Blocks are colour coded in accordance with IS 20.

**100mm



3. PERFORMANCE

Durability - CPI Concrete Blocks are a permanent building material. They will never rot or decay and will provide a lifetime of trouble-free performance.

Rendering - CPI Concrete Blocks provide an excellent base for all common forms of rendering.

Weather Resistance - Properly rendered walls constructed from CPI Concrete Blocks will provide excellent resistance to moisture penetration.

Thermal Insulation - CPI Concrete Blocks can be used with various insulation materials to satisfy the requirements of the 1991 Building Regulations for thermal insulation of external walls.

Examples from technical Guidance Document L:

- (1) 19mm external render
215mm hollow block
44mm polyurethane board
12.5mm plasterboard
=> U-value is 0.45 W/m²k
- (2) 102mm clay brick outer leaf
59mm expanded polystyrene in cavity
100mm solid block inner leaf
13mm lightweight plaster
=> U-value is 0.45 W/m²K

Fire Resistance - Concrete Blocks are a non-combustible material with Class 0 rating for spread of flame. The table below indicates typical fire resistance periods for concrete blocks when used in various forms of construction.

CONCRETE BLOCK FIRE RESISTANCE

NATURE OF CONSTRUCTION	BLOCK TYPE & THICKNESS	TYPE OF FINISH	FIRE RESISTANCE*
Solid Masonry Walls	Solid 100mm	Without finish	2 hours
		With 13mm lightweight aggregate gypsum plaster finish	3 hours
Hollow Masonry walls	hollow 215mm	With 13mm cement/sand finish	1/2 hour
		With 13mm lightweight aggregate gypsum plaster finish	2 hours
Cavity Masonry walls	Solid 2 x 100mm Min. 50mm Cavity		min. 2 hours

*Applies to loadbearing masonry walls required to resist fire from one side at a time. Source: Building Research Establishment Report BR128, 1998. 'Guidelines for the Construction of Fire-Resisting Structural Elements'.

Sound Insulation - CPI Concrete Blocks have a typical density of 2000 kg/m³ and can satisfy the requirements of the 1991 Building Regulations for sound insulation if used in solid masonry construction as recommended in Technical Guidance Document E.

4. PRICES & CONDITIONS OF SALE

To obtain a quotation for a specific project please contact our Sales Office - Telephone: 01-628 0699; Fax: 01-628 0331. All quotations are subject to CPI's Standard Conditions of Sale, a copy of which is available on request.

5. SUPPLY

Delivery of CPI Concrete Blocks is available throughout the Greater Dublin area. CPI

Concrete Block Delivery vehicles are equipped with self-powered cranes and we are therefore able to offer a full crane offload service.

6. TECHNICAL ADVISORY SERVICE

Our representatives are available to give expert advice on the specification or use of CPI Concrete Blocks. For assistance on a specific enquiry please contact our Technical Advisory service - Telephone 01-628 0699; Fax: 01-628 0331.