

Structures and Building and Construction and Manufacturing Components and Supplies UNSPSC CODE : 30000000												
Structural building products UNSPSC CODE : 301300000												
Blocks UNSPSC CODE : 30131500												
Commodity : Hollow and solid concrete blocks UNSPSC CODE : 30131502 Selling Unit :												
S.No.	Parameters	Type	Value 1	Value 2	Value 3	Value 4	Validation	Unit	M	F	G	Demand aggregation
Dimensions and Tolerances												
1	Concrete masonry building units shall be made in sizes and shapes to fit different construction needs They include stretcher, comer, double comer or pier, jamb, header, bull nose, and partition block, and concrete floor units	CH	YES						v			
2	Concrete Block : Concrete block, hollow (open or closed cavity) or solid shall be referred to by its nominal dimensions The term nominal means that the dimension includes the thickness of the mortar joint. Actual dimensions (length and depth only) shall be 10 mm short of the nominal dimensions	CH	YES						v			

Minimum Face Shell and Web Thickness

3	Nominal block width,(mm)	EN	100 or less	100-150	150-200	over 200			√	√		
4	Face shell thickness,Min,(mm)	N	25	30	35				√	√		
5	Thickness of web,Min,(mm)	N	25	30					√	√		
6	Total web thickness per course in any 200 mm length of wall,Min,(mm)	N	25	30	38				√	√		

Physical Requirements

7	<p>General : All units shall be sound and free of cracks or other defects which interfere with the proper placing of the unit or impair the strength or performance of the construction Minor chipping resulting from the customary methods of handling during delivery, shall not be deemed grounds for rejection Where units are to be used in exposed wall construction, the face or faces that are to be exposed shall be free of chips, cracks, or other imperfections,except that if not more than 5 percent of a consignment contains slight cracks or small chippings not larger than 25 mm, this shall not be deemed grounds for rejection</p>	CH	YES						√			
8	<p>Compressive Strength : The minimum compressive strength at 28 days being the average of eight units, and the minimum compressive strength at 28 days of individual units</p>	CH	YES						√			

9	Water Absorption : The water absorption, being the average of three units, when determined in the manner prescribed in Annex E shall not be more than 10 percent by mass	CH	YES						v			
10	Drying Shrinkage : The drying shrinkage of the units when unrestrained being the average of three units, shall be determined in the manner described in Annex F and shall not exceed 0.06 percent	CH	YES						v			
11	Moisture Movement : The moisture movement of the dried blocks on immersion in water, being the average of three units, when determined in the manner described in Annex G, shall not exceed 0.09 percent	CH	YES						v			
12	Grade	CH	Grade-A	Grade-B	Grade-c				v	v		
13	Type	CH	Hollow (open and closed cavity) load bearing uni	Solid load bearing unit					v	v		
14	Density of Block,(kg/m ²)	CH	Not less than 1500	Not less than 1500 but not less than 1100	Not less than 1800				v	v	v	
15	Minimum Average Compressive Strength of Units,(N/mm ²)	CH	3.5	4.5	5.5	*			v	v	v	
16	Minimum Compressive Strength of Individual Units,(N/mm ²)	CH	2.8	3.6	4.4	**			v	v	v	

Materials

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17	<p>Cement : Cement complying with any of the following Indian Standards may be used:</p> <p>a) 43 grade ordinary Portland cement, conforming to IS 8112, b) Portland slag cement conforming to IS 455, c) Portland pozzalana cement, fly ash based conforming to IS 1484 (Part 1), d) Portland pozzolana cement, calcined clay based conforming to IS 1484 (Part 2), e) Supersulphated cement conforming to IS 6909, f) Rapid hardening Portland cement conforming to IS 8041, g) White Portland cement conforming to IS 8042, h) Hydrophobic Portland cement conforming to IS 8043, and j) 53 grade ordinary Portland cement conforming to IS 12269</p>	CH	YES						v		
18	<p>When cement conforming to IS 269 or IS8112 or IS 12269 is used, replacement of cement by fly ash conforming to IS 3812 (Part 1) may be permitted up to a limit of 25 percent However, it shall be ensured that blending of fly ash with cement is as intimate as possible, to achieve maximum uniformity</p>	CH	YES						v		

19	<p>Aggregates : a) The aggregates used in the manufacture of blocks at the mixer or the mixing platform shall be clean and free from deleterious matter and shall conform to the requirements of IS 383</p> <p>b) The grading of the combined aggregates shall conform as near as possible to the requirements indicated in IS 383</p>	CH	YES						v			
20	<p>Fly Ash : Fly ash conforming to IS 3812 (Part 2) may be used for part replacement of fine aggregate upto a limit of 20 percent</p>	CH	YES						v			
21	<p>Water : The water used in the manufacture of concrete masonry units shall be free from matter harmful to concrete or reinforcement, or matter likely to cause efflorescence in the units and shall conform to the requirements of IS 456</p>	CH	YES						v			

22	<p>Additives or Admixtures : Additives or admixtures may be added either as additives to the cement during manufacture, or as admixtures to the concrete mix Additives or admixtures used in the manufacture of concrete masonry units may be:</p> <p>a) accelerating, water reducing, air-entraining and super plasticizer conforming to IS 9103, b) Waterproofing agents conforming to IS 2645, and c) Colouring pigments</p> <p>Where no Indian Standards apply; the additives or admixtures shall be shown by test or experience, to be not detrimental to the durability of the concrete</p>	CH	YES						v			
Marking and Labelling												
23	<p>Concrete masonry units manufactured in accordance with this specification shall be marked permanently with the following information:</p> <p>a) Identification of the manufacturer; b) Grade of the unit c) Year of manufacture, if required by the purchaser</p>	CH	YES						v			

