

Structures and Building and Construction and Manufacturing Components and Supplies UNSPSC CODE : 30000000											
Structural building products UNSPSC CODE : 301300000											
Blocks UNSPSC CODE : 30131500											
Commodity : AAC Block UNSPSC CODE : 30131512 Selling Unit :											
S.No.	Parameters	Type	Value 1	Value 2	Value 3	Validation	Unit	M	F	G	Demand aggregation
Materials											
1	Masonry Units : The masonry units shall be autoclaved cellular (aerated) concrete blocks conforming to IS : 2185 (Part 3) - Latest	CH	YES					√			
2	Cement : Cement shall conform to IS : 455- Latest or IS : 1489 -Latest	CH	YES					√			
3	Lime : Lime shall conform to IS : 712 - Latest The lime shall be of class C, unless otherwise specified All lime other than dry hydrated lime shall be fully slaked in accordance with IS : 1635 - Latest	CH	YES					√			
4	Water : Water shall satisfy the requirements specified in IS : 456- Latest	CH	YES					√			
5	Sand : Sand for mortar shall generally conform to the requirements of IS : 2116 - Latest or to the requirements of IS : 383 - Latest (except for particle size grading which shall conform to IS : 2116 - Latest)	CH	YES					√			
6	Fly Ash : Fly ash shall conform to IS : 3812 - Latest	CH	YES					√			
7	Calcined Clay Pozzolana : Calcined clay pozzolana shall conform to IS : 1344 - Latest	CH	YES					√			

8	<p>Reinforcement: Reinforcement used shall conform to the following: a) Mild steel Grade 1 or Grade 2 bars conforming to IS :432 (Part 1) -Latest. b) Mild steel bars conforming to IS : 226-Latest. c) Hard drawn steel wire conforming to IS :432 (Part 2) - Latest d) Mild steel wire conforming to IS : 280 - Latest e) Welded wire fabric conforming to IS:1566-Latest f) High strength deformed bars conforming to IS:1786-Latest</p>	CH	YES				v			
9	<p>Mortar: 1) Cement-lime-sand mortar, cement -sand mortar or lime-pozzolana sand mortar generally conforming to IS : 2250-Latest shall be used 2) The blocks shall be embedded with a mortar, the strength of which is relatively lower than that of the mix used for making blocks in order to avoid the formation of cracks. A 1:2:9 cement-lime-sand mortar may generally be used for normal work, but where either the intensity of load is high or wall is exposed to severe condition 1:1:6 mortar shall be used. If good quality lime is not available 1 : 6 cementsand mortar may be used 3) All mortar shall be prepared in accordance with IS:2250 -Latest All mortars when mixed shall have a consistency value of 90 to 130 mm when determined in accordance with Appendix B of IS : 2250 - Latest</p>	CH	YES				v			

Design Consideration

10	<p>Choice of Type of Walls : 1) Autoclaved cellular concrete blocks may be employed for both load bearing and non-load bearing internal and external walls The wall thickness shall be designed in accordance with the provisions of IS : 1905 - Latest 2) Autoclaved cellular concrete blocks shall not be used in foundations and for masonry below damp-proof course</p>	CH	YES					√			
11	<p>Strength and Stability : Unless otherwise specified, the design and construction of cellular concrete masonry walls shall conform generally to the requirements of IS : 1905 - Latest</p>	CH	YES					√			
12	<p>Wall Thickaess : The minimum (nominal) thickness of non-load bearing internal walls shall be 10 cm. The minimum (nominal) thickness of external panel walls in framed construction shall be not less than 20 cm. However, depending upon the local condition and desired effect of thermal transmission and sound reduction, 15 cm thick panel walls may be used, provided they are suitably braced and reinforced by lateral and vertical support. The minimum (nornina) thickness of external and internal load bearing walls shall be 20 cm and 15 cm respectively.</p>	CH	YES					√			
13	<p>Parapet Walls : Unless adequately braced at intervals not exceeding 3 m, the height of the wall shall be limited to five times its thickness</p>	CH	YES					√			

14	<p>Lateral Supports : Cellular concrete block masonry walls shall be provided with horizontal or vertical lateral supports at right angles to the faces of the wall. Lateral supports may be obtained by cross-walls, pilasters or buttresses where the limiting distance will be measured horizontally, and by floors and roofs where the limiting distance will be measured vertically The limiting horizontal or vertical dimension of load bearing and non-load bearing walls shall be in accordance with IS : 1905 - Latest</p>	CH	YES				v			
15	<p>Modular Co-ordination : Cellular concrete block walls shall preferably be planned on the principles and application of modular co-ordination to facilitate maximum use of full and half length units The cutting of units at the site shall be restricted to the minimum Attention shall be paid to the recommendations for modular co-ordination while fixing the overall length and height of the walls, width and height of door and window units and other openings, wall dimensions between the door units and corners All horizontal dimensions shall be in multiples half length in horizontal dimensions and full thickness of units in vertical dimensions of 3 M (see IS : 7921 -Latest) and all vertical dimensions shall be in multiples of 2 M (see IS : 7922-Latest) This will offer the nominal half length in horizontal dimensions and full thickness of units in vertical dimensions</p>	CH	YES				v			
	<p>Avoidance of crack formation: Compliance to be done strictly as per provisions contained in clause 4.6 of IS : 6041 (latest)</p>	CH	YES				v			

Recommended length to height ratio for cellular concrete block masonry walls											
16	Vertical spacing of joint reinforcement,(mm)	N	900	1000	1200			√	√	√	
17	Length L of the panel (irrespective of the height H of the panel),Max,(m)	N	12	15	18			√	√		
18	Ratio L/H,Max: 200 mm thick wall	N	2.5	2.75	3			√	√	√	
19	Ratio L/H,Max: 300 mm thick wall	N	1.75	2	2.25			√	√	√	
Storage and handling of materials											
20	1) The blocks shall be stored in such a way as to avoid any contact with moisture on the site They shall be stock piled on planks or other supports free from contact with the ground and covered to protect against wetting. The blocks shall be handled with care and damaged units shall be rejected 2) Cement, lime, aggregates and other masonry materials shall be stored and hauled as laid down in the relevant Indian Standard specifications for these materials	CH	YES					√			
Certification											
21	Conforming to IS:6041 (Latest)	CH	YES					√			
22	Whether ISI Marked	CH	YES	NO				√	√		
23	CM/L Number (Must declare if ISI Marked)	CH	YES					√			

Test Report Details

24	Availability of Test Report from Central Govt/ State Govt/NABL/ILAC accredited lab(hint: Must be declared	CH	Yes	No				√	√		
25	Test Report to be furnished to the Buyer on demand(Must be declared, write NA if Test Report is not available)	CH	Yes	NA				√	√		