

Sheet1

PARAMETERS	AUTOCLAVED AERATED CONCRETE BLOCKS	CELLULAR LIGHTWEIGHT CONCRETE BLOCKS	BURNT CLAY BRICKS
Basic raw materials & other inputs	Cement, Sand/PFA, High Quality Lime, Gypsum, Water & alluminium as aerating Compound	Cement, Aggregate, Fly Ash, Water & Foam chemical Compound	Top Soil & Energy
GENERAL PROPERTIES			
Compressive Strength in kg/cm ³	30-40	25 – 30	40-75
Range of applications / utility	Load Bearing Blocks	Partition	Load-bearing & non-load bearing
Aging	No gain in strength with age	Gains strength with age	No gain in strength with age
Sound Insulation	Superior than burnt clay & hollow concrete	Superior than burnt clay & hollow concrete	Normal
Ease of Working	Can be cut, nailed & drilled	Can be cut, nailed & drilled	Normal
Process	Casting –rising –pre curing	Casting –Rising-conventional curing	Moulding-heat treatment.
SHAPE & FORM			
Pre-cast Brick size	600 x 200 x 100/150/200 mm	600 x 200 x 100/150/200 mm	230 x 100 x 70 mm
Pre-cast elements	Any size of elements	Any size of elements	Not feasible
Water Absorption % by weight	Less than 20% by volume	12% for 800 kg/m ³ density (by volume)	20% by volume
Drying Shrinkage mm/meter	Shrinkage after maturing 0.011 (for 600 kg/m ³) 0.058 (for kg/m ³)	0.1	No shrinkage
Productivity	Output 100% more than brick work	Output 100% more than brick work	Normal

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Eco Friendliness	Pollution free, normal energy requirement, Open process uses fly ash or sand-lime	Pollution free, Least energy requirement, Can consume fly ash around 33%	Creates smoke, Uses high energy, Wastes agricultural land
Delivery	Pre-Cured and ready for delivery	Conventional curing required. Not ready for delivery in post production.	Seasonal.
Automization	Automated manufacturing process- accurate design mix	Semi automization	Manual