AKSHAR
BUILD CON

SMARTEST CHOICE FOR CONSTRUCTION NEEDS

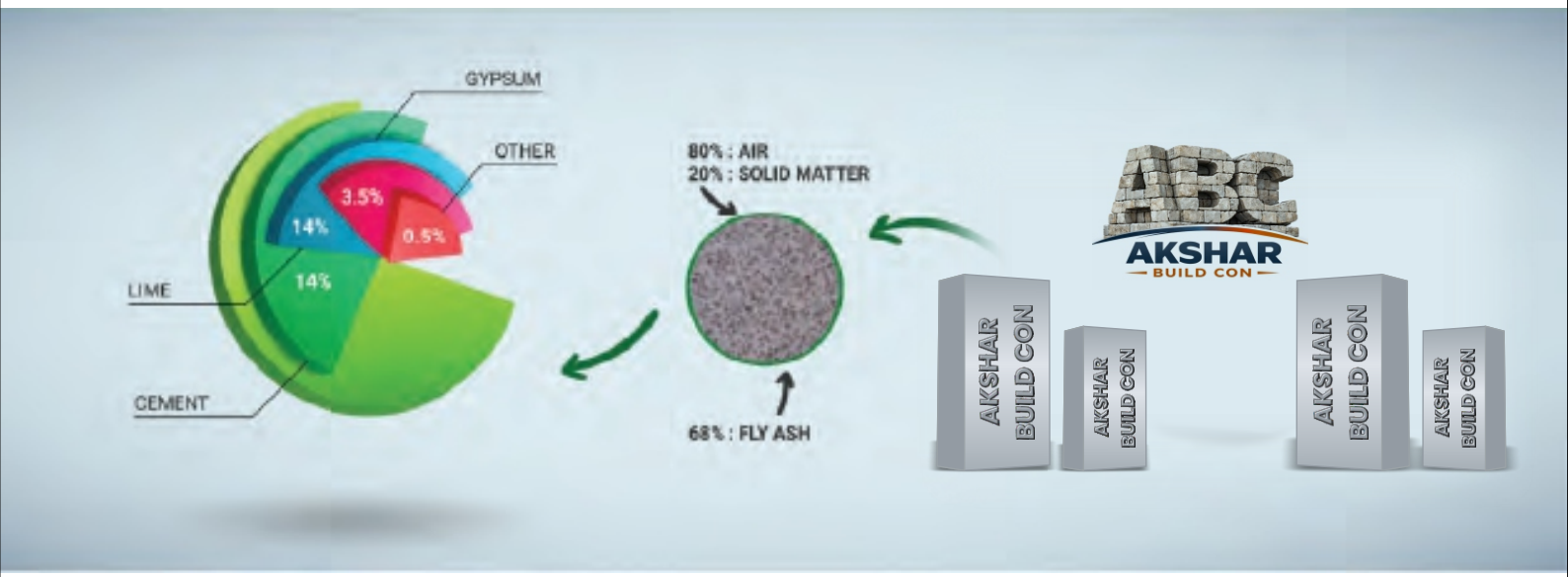
Corporate Office : Plot No: 339/10 MEGA GIDC Kharedi Phase 2 Nr Gaushala opp police Chowki No 3 (Dahod Gujarat -389151)

AAC
BLOCK HISTORY

Autoclaved Aerated Concrete (AAC), was first manufactured in the mid 1920s by the Swedish architect and inventor, Dr. Johan Axel Eriksson, working in collaboration with Professor Henrik Kreuger, at the Royal Institute of Technology. Although the process was patented in 1924, production started in Sweden in 1929, under the brand name Ytong. The second major autoclaved cellular concrete international brand was Hebel, which opened its first plant in 1943, in Germany.

The Ytong **Autoclaved Aerated Concrete** in Sweden was produced with Alum Slate, whose combustible Carbon content made it beneficial to use in the production process. As the slate deposits used for Ytong contained a bit of uranium, the manufacturers started using new methods, with a composition of Quartz sand/Fly Ash, calcined gypsum, lime, cement, water and Aluminium powder.

After 1975, Ytong produced a new type of **Autoclaved Aerated Concrete** block without using Alum Slate, thus the effects from radioactive radon gas, that was there in earlier products was eliminated. Brikolite **AAC blocks**, follows the same process of



Comparison

AAC BLOCK VS. RED CLAY BRICK

AAC BLOCK

- High Thermal Insulation does not allow heat to penetrate to the house
- Saves carpet area by 8-12 mm.
- Low water seepage and high water absorption.

RED CLAY BRICK

- Low Thermal Insulation does not allow heat to penetrate to the house
- Takes a larger area due to its size
- High water seepage and high water absorbtion

TECHNICAL ADVANTAGES

STRUCTURAL SAVINGS

Erikolite biocks are very light thus it reduces dead weight and aiso reduces consumption of steel. Moreover. the customized and well shaped biocks lead to minimum use of plaster and are cost saving.

HIGH STRENGTH

Erik-O-Lite AAC Biocks have higher compressive strength. Steam curing at high pressure gives Brikolite Biocks unmatched strength to weight mtio which exceeds the indian Buiiding code requirement.

HIGHER FLEXIBILITY

Erik-O-Lite blocks are worker friendly. The blocks can be easily grooved, cut and shaped to desired sice as easiiy as wooden pianks. Thus. signiticantly improving the speed of construction, which further leads to cost savings, especiaily in high volume projeots and fecilitates easy instaiiation.

FASTER CONSTRUCTION

Huge reduction in construction tirne as Brikolite blocks are lighter in weight, construction time is lesser and the blocks take lesser setting time.

GREEN BUILDING : ECO FRIENDLY & ENERGY SAVING

AAC otesen gusbiies for LEED/GRIHA with high rating sotat contriiotion. Ous to tia eneiroomentel hendimoes, Catron fees monisteclestay and imglasi iredaitaiion. Bebelie it hagiry meraemendird ies grenn ihuboing. Entiolite clearasuet energy eerieiin ipiton ad iitalioe for lese sningy to meruriuobare and heesoee of ile ight woget a metres the tuxt cest ier timneportation. Erawine aleo meupos ane sislar comeienption to congarieem to Red Cley Bncke. Eo for going gnien Brifietter is reeoneramord.

INSTALLATION BENEFITS OF BRIKOLITE AAC BLDCKS

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EARTHQUAKE RESISTANT

Erikolite AAC blocks are lighter and they absorb and transmit minimum force of seismic vibrations. Erikolite blocks therefore fuifill the requirement of seismic Zone IV and V in which the North East of india lies.

FIRE RESISTANT

Unigue ceiiuiar beehive like structure of AAC Erikolite blocke allows it to face temperatures as high as 1500 degrees centigrade and hold up to fiames for 4 to 5 hours at a stretch. They also do not emit any toxic fumes during such hazards.

PEST RESISTANT

The inorganic constitution of Brikolite AAC biocks facilitate resistance to pests. Prevention of infestation and attecks by termites and other insects is casier and structures are safer.

HIGH ACOUSTIC INSULATION

The porous Brikolite biocks which falis in STC-44(Sound Tranamission Ciass) offers attenuation of about 45 to 490B. The sound absorbing property enhances the quality of living speces and fuifilis requirements in commercial areas too.

AAC BLOCK
VS RED CLAY BRICK

PARAMETER	BRIKOLITE AAC BLOCK	RED CLAY BRICK
BASIC RAW MATERIALS & OTHER INPUTS	Cement 15-12269, 13-8112, Starid/PFA-I5-383, High Quality Lime I8-712, Gypsum, Waten- 15-456, Fly Ash-I5-3612 (PT-1) & aluminum as searating compound.	Top Soil & Energy
DRY DENSITY KG/M	550-650 kg/m³ (dry oven)IS-2185 (RT-3)	1900 kg /m³
COMPRESSIVE STRENGTH IN KG/CM²	30-45 kg/gm³, 1S-2185 (PT-4)	40-75- kg/cm³
AGING	Gains in strength with age.	No gain in strength with age
THERMAL CONDUCTIVITY Wim.K	0.24 Wiim K. (for 551 - 650 kg/m³)	0.ST W/m,IC
SOUND INSULATION	Superior than burnt clay & hoilow concrete.	Normal
EASE OF WORKING	Can be cut, riailed & driiied.	Normal
FIRE RESISTANCE	4 to 6 Hours (depending on thickness)	2 Hours
SOUND REDUCING INDEX	45 db for 200mm thick wall	50db for 230mm thick wall, for the frequency ninging. from 200 to 2000 Hz
PEST & RODENT RESISTANCE	No fiingus & aigae germination due to nen organic properties	Algae Suscepiible
PROCESS	Casting rising-Precuring IS-456, IS-2185 (PT 4)	Moulding heat treatment
PRE CAST BRICK SIZE	600X200X75 To 300mm-/S-2185(PT-3A)	230x100x70 mm
PRE CAST ELEMENTS	Ahy size of elements.	Not feacible
WATER ABSORPTION & 6Y WEIGHT	Less than 20% by volume 45-2185 (PT-S)	20% by volume
DRYING SHRINKAGE MM/METER	Sbriokage after moturing 0.011 (for 600 kg/m) IS-2015 (PT-3)	No shrinkage
PRODUCTIVITY	Output 100% more than brick work	Normal
ECO FRIENDLINESS	Pollution free, nonmal energy requirement, open process uses tly ash or sand lime.	Creates smoke, uses high eneroy, wastes agricubural land
STRUCTURAL SAVING OUE TO DEAD WEIGHT REDUCTION DELIVERY	S5% reduction in weight of walis-Tremendous structural caving for high rise buiidings in earthquake I poor soll area	No additional saving
AUTOMATION	Automated manufacturing process-eccurate design mis	Manual
LAGOUR INVOLVEMENT FOR 10X10 FT WALL	1 Labour	2 Labours
CONSTRUCTION SPEED	Very bigh due to bigger size, light weight	Comparatively lower
QUALITY	Unitonn and tinished	Normaily varies
DELIVERY	Fre Cured and ready for delivery IS-456	Seasonal

TECHNICAL SPECIFICATIONS

BRIKOLITE SIZES

SL. NO.	DIMENSION OF AAC BLOCKS (L X H X B)	CUBIC METER OF AAC BLOCK	NO. OF AAC BLOCK IN 1 CUBIC METRE	WEIGHT OF ONE AAC BLOCK
1	600*200*075 MM	0.00900	111 Pcs (Approx)	6/7 KGS (Approx)
2	600*200*100 MM	0.01200	083 Pcs (Approx)	8/9 KGS (Approx)
3	600*200*125 MM	0.01500	066 Pcs (Approx)	10/11 KGS (Approx)
4	600*200*150 MM	0.01500	055 Pcs (Approx)	12/13 KGS (Approx)
5	600*200*175 MM	0.02100	047 Pcs (Approx)	14/15 KGS (Approx)
6	600*200*200 MM	0.02400	041 Pcs (Approx)	16/17 KGS (Approx)
7	600*200*225 MM	0.02700	037 Pcs (Approx)	18119 KGS (Approx)
8	600*200*250 MM	0.03000	033 Pcs (Approx)	20/21 KGS (Approx)

BRIKOLITE SPECIFICATIONS

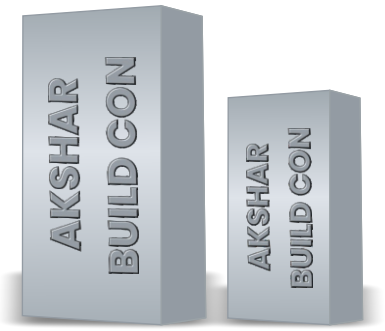
PRODUCT SPECIFICATIONS	UNITS	CAPACITY
Length	mm	600
Height	mm	200
Thickness	mm	75,100,125,150,200,225,250
Compression Strength	Ni mm-	>4 (As per IS . 2185 Part III
Normal Dry Density	Kg/m=	550-650
Thermal Conductivity	W/mk	0.24
Sound Reduction	Db	Upto 42
Fire Resistance	Hrs	*4
Dry Shrinkage	%	0.04

FLY ASH BRICKS

Fly ash bricks are eco-friendly building bricks made using fly ash, a fine powder produced as a by-product when coal is burned in thermal power plants.

Simple Explanation

Instead of wasting fly ash, it is mixed with cement, sand/stone dust, and water, then molded and harde ned to make strong bricks.



Key Features:

- ✔ High strength and durability
- ✔ Smooth finish and uniform shape
- ✔ Less water absorption
- ✔ Eco-friendly (reduces pollution)
- ✔ Cost-effective

Use

- ✔ House construction
- ✔ Buildings and apartments
- ✔ Boundary walls
- ✔ Load-bearing and non-load-bearing walls

REACH OUT TO US

AAC BLOCK

(AUTOCLAVED AERATED CONCRETE BLOCK)

AKSHAR BUILD CON

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