IS :2185 Part -3 1985

CM/L 7400069310

YODDHA®

योद्धाओं वाली ताकत

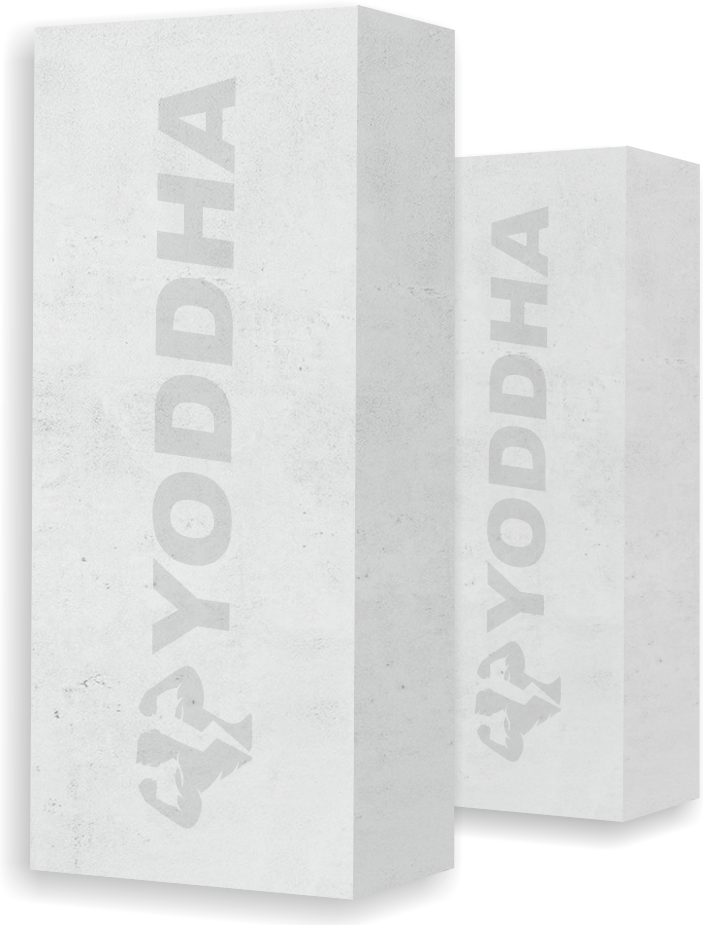
CERTIFIED ISO 9001 : 2015 COMPANY

AAC BLOCK

History of AAC Blocks

Dr Johan Axel Erikkson,along with Professor Henrik K-reuger,developed AAC blocks in the early 1920's, and followed it up with patenting the manufacturing in 1924. By the year 1929, AAC blocks were produced in full swing in Sweden.

Today,AAC blocks are widely manufactured as a construction material across our country in states like Maharashtra, Tamil Nadu, Gujarat, Uttar Pradesh, Andhra Pradesh, Karnataka, Odisha, West Bengal, Rajashthan & several other states. The popularity of AAC blocks is steadily growing in north eastern states of India, owing to increasing demand for housing units and commercial spaces. However, the market for this construction material is still in its infant stage in the northern-eastern parts of India



All About AAC Blocks

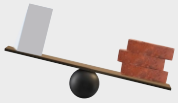
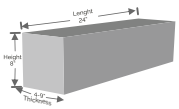
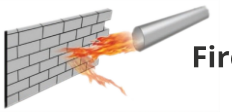
What are AAC Blocks?

AAC block are precast sustainable construction material made from aggregates of sand. calcined gypsum, fly ash, lime, Ordinary Portland cement, water and aluminum powder.After mixing and moulding, the concrete is autoclaved under heat and pressure and it thus gains its distinctive poperties. AAC blocks are in high demand, owing to its properties like light weight, thermal insulation, sound insulation, ease of work, fire resistance, etc.

Where to use AAC Block ?

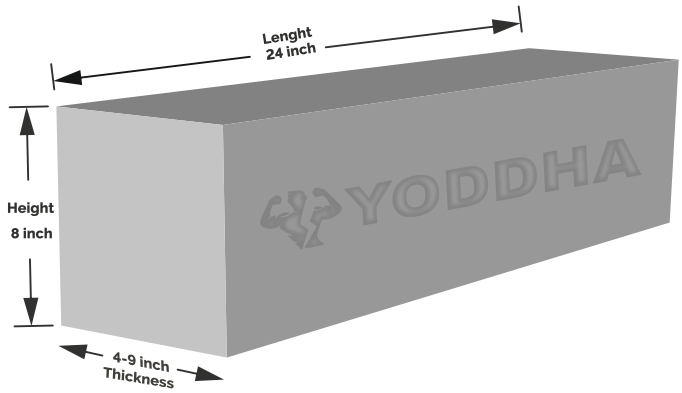
AAC blocks are widely used in the construction of apartments and other types of residential projects, industrial and commercial building, such as hotels, offices, hospitals and schools. Owing to their excellent heat insulation capacity, AAC blocks find application in interior and exterior construction. They are ideal for highrise structures.

Yoddha AAC Block

FEATURES	ADVANTAGE	BENEFITS
 **Bigger in Size**	• Reduces Mortar requirement by over 66%. • Decreases lead time as well as installation time.	• Reduces cost of construction of wall.
 **Lightweight**	• Leads to lighter dead load on the building structure. • Easy Application.	• Reduces requirement for steel & cement Facilitates ease of work to the mason & increases productivity of the labour.
 **Dimensional Size Accuracy**	• Need for plaster is reduced. • Reduces the time spent on levelling of blocks.	• Results in cost and time savings.
 **Thermal Insulation**	• Maintains the internal temperature of room for longer period.	• Saves electricity costs.
 **Fire Resistance**	• It provides fire safety to the building as the material is fire resistant and has low thermal conductivity.	• Reduces the spread of fire by 2 to 6 hours depending on the thickness of the wall
 **Made of Inorganic materials**	• Pest resistance.	• Avoids damages and losses to furniture, paint surface etc.
 **Sound Insulation**	• Has a commendable Sound Transmission Class rating.	• Maintain privacy
 **Autoclaved**	• Blocks are pre cured and do not require any further water curing to	• Result in savings of water at site
 **Compressive Strength**	• Our blocks have required compressive strength as per mentioned in Indian Standard.	• Stronger walls assured
 **Rough Surface**	• Provide better adhesion in plastering mortar etc.	• Reduction in rebound loss and better strength and durability of plastered wall.
 **Technical Assistance**	• Our technical representatives provide you with services like sampling of products, doing site audits.	• Higher Construction efficient .

AAC Blocks Technical Specification
As per IS:2185 Part - 3 (1984)

SL No.	Parameters	Units	Value
01	Density (Oven Dry)	Kg/m2	551 -650
02	Compressive Strength	MPa	>4N/mm^2
03	Size Tolerance	mm	Length - ± 5mm Height & Width - ± 3mm
04	Modulus of Elasticity	Mps	2040
05	Water Absorption at (Equilibrium)	Kg/m^2 X h-0.5	4-6
06	Thermal Conductivity	w/mk	0.16
07	Thermal Resistance ® Value)	k/w	0.46
08	Drying Shrinkage	mm/m	max 0.20 (0.04%)
09	Fire Resistance	Hrs	4 (for 200 mm wall)
10	Sound Transmission Class Ratin	db	44



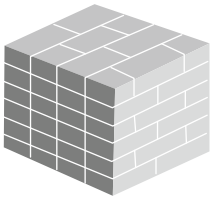
Sizes & Coverage

SL No.	Dimension (L X H X B) (Approx in inches)	No. Pieces In One Cubic Meter	Wall Area Cover Per Cubic Meter (In Feet Approx)
01	24 X 8 X 4	83.33	107.6
02	24 X 8 X 5	66.66	86
03	24 X 8 X 6	55.55	71.7
04	24 X 8 X 8	41.66	53.8
05	24 X 8 X 9	37.00	47.8

AAC Block Masonry Guideline

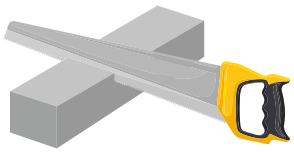
As Per BIS- 6041 (1985)

STACKING



On dry and even surface to avoid contact with moisture

CUTTING OF BLOCK



Use tools like handsaw or rotary cutter

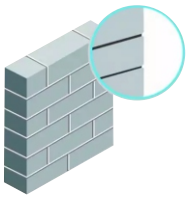
MORTAR FOR MASONRY

Use AAC Mortar (BJM) or cement sand (1:6)

WETTING OF BLOCK

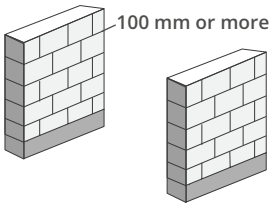
Dip in Water & lift immediately (if required)

MORTAR THICKNESS



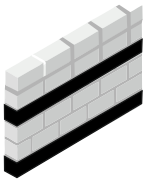
AAC Morter (BJM) Thickness 3-4mm, or Cement & Sand Thick-ness 10-12mm

BOND PATTERN



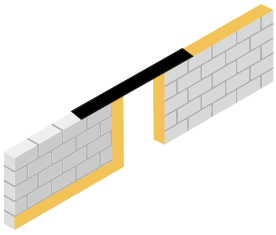
100mm or more

COPING BEAM



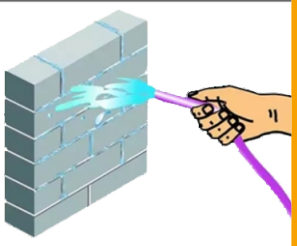
Coping Beam with 6mm/8mm reinforcement after every 1.2m height

LINTEL SUPPORT



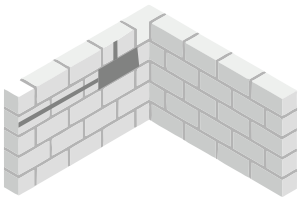
Lintel Support on Full block

CURING OF WALL



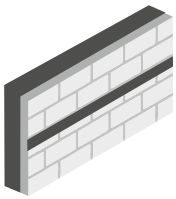
Curing required only for Mortar (cement + sand) joints

ELECTRIC & SANITORY CASING



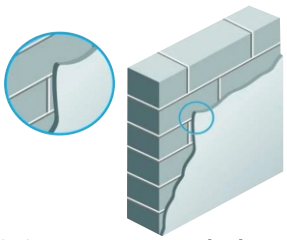
Chases to be grooved before plaster on wall

BEAM & COLUMN JUNCTION



Wire Mesh & Chemical grout to be provided, if required

PLASTER



Minimum external plaster (8 -10mm Approx)

Application of AAC Blocks

Multi Storied Building

Residental Construction

Institutional Construction

Industrial Building

Commercial Building

Cost Analysis* Over Conventional Bricks

Parameter	Yoddha AAC Blocks	Conventional Bricks
Savings in Steel	15-20% due to lower dead-weight/load	No Saving
Savings in Wastage	2-3% Breakage /bare minimum	Upto 15-18%
Savings in Mortar	60-70% saving Due to bigger size & Less joints required lesser quantity of mortar/cement	No Saving
Savings in Plaster	60%-70% reduction in the cost of plastering, due to uniforms shape and texture, which gives even surface to the walls.	No Saving
Savings in Labour	25%-35% saving in Labour cost	More Labour required
Savings in Operational Cost	25% saving in Operation cost due to speedy construction	No Saving
Savings in Construction Time	Construction time 2 to 3 times faster due to bigger size	Slow construction due to small size
Savings in Energy	Approx 30% Air-condition load, both heating and cooling will come down	No Saving
Savings in Carpet Area	More Carpet area is available due to uniform shapes of Blocks and less thickness of walling.	Less carpet area available due to un even sizes of brick thickness of walling
Savings in Pre-Cast Element	Block can be cut, nails & drill easily	Easily Not Done
Savings transportation & environment	Easy to transport due to light weight pollution free, normal energy required to produce	Create pollution/smoke use high energy

* Based on general calculation & It may be vary location wise/sitewise

Yoddha AAC Block Jointing Mortar (BJM)

Parameter	Specifications
Appearnce	Grey Powder
Pack Size	40 kg
Coverage (3-4mm Thikness)	Approx 120 sq feet (For 4" Thick Wall)
Water Required	30-35 %
Curing	No required
Pot Life	60-75minuts

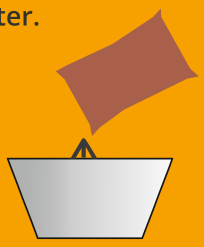
DESCRIPTION

Yoddha Block Jointing Mortar (BJM) is a pre mix, pre packed Cementous adhesives for jointing the AAC blocks. It is cost effective and easy to use product with no curing required at site. Yoddha block jointing mortar is a Polymer based non shrinkable, self curing mortar material with premix of grey cement. graded sand and polymer for better binding properties

Yoddha AAC Block Jointing Mortar Preparation & Application

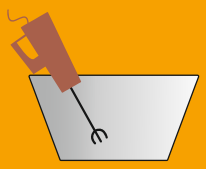
MORTAR MIXING

In a clean bucket, mix AAC Block Jointing Mortar in 25-30% of water.



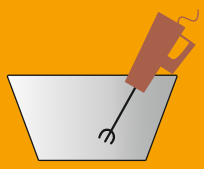
MIXING BY MIXER

Mix first for 5-10 min by electrical mixer or hand tool mix homogeneo-usly.



MORTAR REMIXING

Mix again for 2-3 minutes. Now thin bed mortar is ready to use.



CLEAN SURFACE

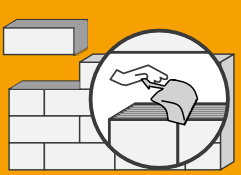
Before application clean the surface of blocks using suitable took like brush so that any foreign materia is not held on the blocks.

WET SURFACE

Wet the surface of blocks before applying mortar.

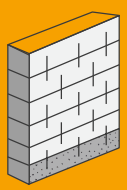
MORTAR SPREAD

Should be spread AAC Block Jointing Mortar with 3-4 mm thickness.



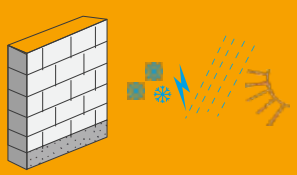
DND

Do not disturb the wall after application of mortar for at least 24 hours.



SETTING TIME

The setting time is affected by climatic conditions, allow stand-alone time accordingly.

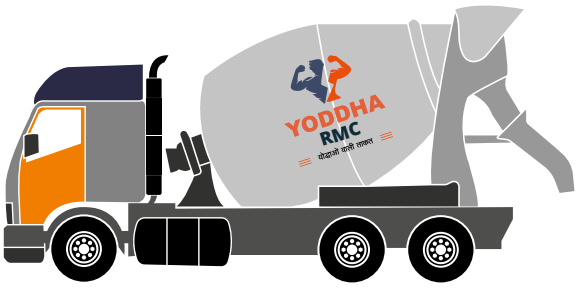


Follw us on:-

Flashback

Having an expertise of 25 years in the construction building material business running under the roof of Piyush Traders, we are pleased to introduce Yoddha AAC Block. With an underpinning of our Market image, we have a very strong network and we have linked ourselves with various big projects. We have established ourselves as the leading & largest supplier of building material since 1995. We take pride in introducing ourselves as one of the best AAC Block Plant in Jabalpur and believe in post-sale service with excellent technical support to valuable customers. Our plant is located at Nigri, Jabalpur Madhya Pradesh.

Other Products by Yoddha Group



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YODDHA
PAVER BLOCK
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CORPORATE OFFICE : Katangi Road, Karmeta, Jabalpur 482002 (M.P.) **Landline:** 0761-4014127
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TOLL FREE NUMBER : 1800 890 5657