

PRODUCT CATALOGUE



TAJ

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TAJ



AUTOCLAVED AERATED CONCRETE BLOCKS

TNE AAC Private Limited introduces and markets its premium quality AAC blocks under the brand name of Taj AAC Blocks. It is made at our highly advanced manufacturing plant at Changsari, Kamrup (Rural) with the best and most-modern mechanical & electrical instrumentation and automation, which ensures superior quality and uniform shapes of our TAJ

AAC Blocks making it user friendly & easy to handle.

Autoclaved Aerated Concrete (AAC) blocks are a lightweight, precast, foam concrete building material which is composed of quartz sand, aluminium powder, lime powder, calcined gypsum, cement and water, and are cured under heat and pressure in an autoclave.

ADVANTAGES OF TAJ AAC BLOCKS

- AAC blocks weigh almost around 80% less as compared to the conventional red bricks, ultimately resulting in a great reduction of deadweight. Further, lightweight saves cost and energy in transportation, labour expenses and increases chances of survival during seismic activity. Also due to less weight, the blocks can be handled easily.
- As the AAC blocks are very easy to handle, manipulate and use, ordinary tools for cutting the wood such as the drill, band saws, etc. can be easily used to cut and align them. Moreover, the AAC blocks come in larger sizes and with fewer joints. This results in faster construction as the installation time is significantly reduced due to fewer amounts of blocks and the masonry amount involved is also lowered resulting into reduced time-to-finish.
- Produces atleast 30% less solid waste than traditional concrete. There is also a decrease of 50% of greenhouse gas emissions.
- Depending upon the thickness of the AAC blocks, they offer fire resistance between 2 to 6 hours. These blocks are highly suitable for areas where fire safety is of great priority.
- The material is very airy and allows diffusion of water. This reduces the humidity inside the building. AAC will absorb moisture and release humidity. This helps to prevent condensation and other problems that are related to mildew.
- There are no toxic gases or other toxic substances in Autoclaved Aerated Concrete. It neither attracts rodents or other pests, nor can it be damaged by such.
- AAC blocks are highly superior in terms of the strength, thus it gives higher stability to the structure of the building. Also, the porous structure of the AAC blocks result in enhanced sound absorption, making it sound resistant. So, AAC blocks are the most ideal material for the construction of walls in auditoriums, hotels, hospitals, studios, etc.

APPLICATIONS

Residential properties | Commercial properties | Institutional properties
Hospitals and hotels | Multi-storey buildings | Industrial properties

ADVANTAGES OF AAC BLOCK OVER THE CONVENTIONAL RED BRICK

- Better structural strength
- Enhanced heat prevention
- Better heat insulators
- Eco-friendly products
- Great resistance against fire
- Better sound insulation
- Available in custom sizes ensuring flexibility in designing
- Cost effective products

AAC ADVANTAGES FOR OWNERS

- Cost effectiveness
- Lower utility bills
- Lower maintenance costs
- Lower insurance premium
- Fire resistance
- High level of thermal efficiency
- Improved quality of indoor air
- Enhanced protection of individual and the property

AAC ADVANTAGES FOR CONTRACTORS

- Faster construction
- Workability of the AAC Block
- Competitive Rate

TECHNICAL SPECIFICATIONS

Property	Units	Sizes
Size	mm	600 X 240 (with 200/250 option) X thickness
Thickness	mm	50(2"), 75(3"), 100(4"), 115(4.6"), 125(5"), 150(6"), 200(8"), 225(9"), 300(12")
Compressive Strength	N/mm ²	> 3 - 4.5 (IS 2185)
Oven Dry Density	Kg/m ³	551 - 650
Sound Absorption	De	Up to 42
Fire Resistance	Hrs.	4 (depending upon the thickness)
Thermal Conductivity "K"	W/(m-K)	≤0.21
Thermal Resistance	K-m ² /W	0.95 (for wall of 200mm thickness)
Heat Transmission Coefficient 'U'	W/(m ² K)	2.17
Drying Shrinkage	%	0.04% (Size of Block)

Site survey & on-site expert assistance

Estimate of quantity

Construction guidance to builders and masons

Cost analysis

SERVICES



BLOCK JOINING MORTAR

ADHESIVE FOR AUTOCLAVED AERATED CONCRETE BLOCKS

DESCRIPTION

Mortar is a grey powder adhesive composed of cement bonding agents, minerals and synthetic resins, and special additives. Mortar becomes an easily workable product, with a high adhesion power and perfect thixotropy. Mortar is a workable paste use to bind construction blocks together and fill the gaps in between.

USES Mortar can be used for laying internal and external Autoclaved Aerated Concrete blocks and panels, concrete blocks, fly ash bricks and many more things.

DO'S

1. Clean dusty, dry surfaces to ease application and provide better adhesion.
2. Use clean portable water.

DON'Ts

1. Apply mortar over a dry or dusty surface.
2. Apply mortar bed over curing agents, sealers, paint or oil.
3. Use acids to remove curing compounds or sealers.
4. Apply >12mm (1/2 inch) of mortar, at one time, to prevent slumping on vertical surfaces.
5. Leave thin floor toppings exposed to rapid drying conditions (sun, wind, etc.).

TECHNICAL & ECONOMICAL BENEFITS OF MORTAR

- Higher compressive and adhesive strength
- Acting as a thermal barrier for joint, thus enhancing the thermal insulation and fire resistance properties
- Eliminating material waste
- Increasing productivity on-site
- High quality control system for raw material selection and products testing
- Exact mixing ratios (scales and weighing process) with controlled mixing method
- Economic, fast and easy-to-use (mix & apply), only addition of water is required
- Excellent bonding, crack free, high resistance to water and protection from extreme weather conditions
- Non-shrinking mortar
- It has excellent adhesion properties; no slip is observed on vertical applications
- No pre-curing or post-curing required

METHOD STATEMENT FOR APPLICATION OF MORTAR

1. To prepare the mixture for 40kg/bag mortar, pour into a container 10-12 litres of clean portable water.
2. Using electrical stirrer, mix mortar & water to obtain a homogeneous lump free consistent mix until creamy mix is achieved and allow the mixture to rest for 2-3 minutes.
3. Ensure the alignment of blocks on the first row.
4. Remix shortly before applying with the special toothed trowel by spreading a thin layer of mortar over the entire contact surface, noting that only thin layer should be applied to enable the continuous thermo insulation of the blocks.
5. Remove all the excess mortar before it hardens.
6. Allow a space of about 2cm above the wall between the top of the block wall and slab or beam to avoid cracks along the wall.
7. Saturate the block wall with water only once for curing and start plastering only after 24 hours.
8. Pre-wetting of blocks before application of mortar will enhance the performance of the mortar.

Mortar should be applied to the surface which must be perfectly clean, solid, compact and free from grease substances.

TECHNICAL DATA

PARAMETERS	SPECIFICATIONS
APPEARANCE	Powder
BINDER	Cement
COLOUR	Grey
BULK DENSITY	1650-1700Kg/m ³
AVG. COMPRESSIVE STRENGTH (after 28 days)	> 5N/mm ²
TENSILE ADHESION STRENGTH	> 0.40N/mm ²
MIXING RATIO [Mortar (kg): Water (lt.)]	40kg: 10-12lt. or 25-30%
MAX TIME FOR THE APPLICATION	2-3 hours after mixing
RECOMMENDED THICKNESS	3mm
CONSUMPTION/COVERAGE	2-3Kg/m ²
PACKING	40Kg/bag
STORAGE	Store in a dry condition
SHELF LIFE	6 months from date of production

The 2cm separation between the top of the block wall and the bottom of the slab or beam should be filled with suitable compressible material. Spray the block wall with water before applying the plaster. Ensure that the first layer of blocks is fixed properly with perfect alignment.





READY MIX PLASTER
FOR A FAST, EASY, READY AND FINE APPLICATION

PRODUCT DESCRIPTION

The plaster is made using perfectly graded, calibrated machine-crushed sand, mixed with high-quality cement that is machine blended to give you fine, consistent quality and reliability.

Ready Mix Plaster is a specially formulated, easy-to-use, pre-mixed material for plastering all types of blocks and brick walls. The product is best known for its water retention properties and adhesion strength, and a superior substitution to job site cement-sand plasters, saves time, mess and space. It is also suitable for use as the spatter dash coat on concrete surfaces. Hardened ready-mix surface can be further smoothed with paint base and finish coat. Ready Mix Plaster is suitable for interior and exterior use. It is not for use on painted surfaces.

ADVANTAGES

- Pre-mixed to ensure good consistent quality.
- Pre-packed for convenience in handling.
- Easy-to-mix and apply.
- High bonding strength.
- Minimise cracking.
- Eco-friendly product.
- Excellent adhesion.
- Consistency of material and quality.
- Eliminates multiple process at site.
- Minimum 3 days curing required.
- Ready Mix Plaster is for increased time efficiency.
- Minimum water use, saving precious resource.
- No need to stock sand/cement for block work & plaster.
- Easily measurable. Easy control over stock.
- Less rebound losses resulting in saving of material and less fatigue for mason.

PROPERTIES	READY MIX PLASTER
APPEARANCE	Grey
BINDER	Ordinary Portland Cement
AGGREGATE	Graded Sand
ADDITIVES AND DURABILITY	Additives to enhance workability
WATER DEMAND	17-20% by weight
WET DENSITY	1.8-2.00Kg/m ³
COMPRESSIVE STRENGTH	>8.0N/mm ² @ 28days
APPLICATION THICKNESS	6 to 12mm is one time
COVERAGE	0.20Kg/mm/sq.ft.
POT LIFE	≤2 Hours
MAXIMUM AGGREGATE SIZE	<2mm
PACKING	40Kg/bag
SHELF LIFE	6 Months from date of production
STORES	Store in a dry condition

SURFACE PREPARATION

- All surfaces must be clean and free from dust, oil, and any trace of foreign material
- All substrate defects should be patched up before plastering
- Always moisten the surface prior to application
- Avoid stagnant or frequent water flow on the substrate prior to plastering application to prevent poor adhesion of plaster on the wet substrate
- Mix one bag (40 kg) Ready Mix Plaster with approximately 6-8 litre of water
- Mix thoroughly for 3-5 minutes until the desired homogenous paste is achieved
- Drum is recommended to ensure homogenous mix
- Ensure that the mix is free from lumps before use
- Ready Mix for 1 minute if the mixed paste is left unused for more than 30 minutes

APPLICATION

- Apply the Ready Mix Plaster over the surface with a steel trowel
- If the application required few layers, the underneath layer must be dry before applying the subsequent layers

STORAGE

- Ready Mix Plaster should be stored in a dry place free from excessive moisture

HEALTH & SAFETY

Ready Mix Plaster is non-hazardous. However, Ready Mix recommends workers to wear appropriate safety equipment while handling this product. Include dust masks, rubber gloves, full eye protection and boots where necessary. In case of contact with eyes, wash with plenty of water. If irritation persists, seek immediate medical attention.

