



HYDA CON
Innovative chemical solutions

Technical Data Sheet

HYDAFIX AAC 10 Aerated Concrete Block Glue

ABOUT HYDAFIX AAC 10

HYDAFIX AAC 10 is a polymer-based, high-performance block adhesive formulated for precision laying and durable construction with **HYDAFIX AAC 10** and other lightweight masonry units. Designed for both interior and exterior applications, it ensures improved bond strength, longer working time, and superior resistance to shock, impact, and water ingress.

Its advanced formulation eliminates the need for post-curing, reduces material wastage, and offers ease of application for faster, economical construction. With consistent quality and enhanced tensile strength, **HYDAFIX AAC 10** is ideal for modern masonry installations requiring reliability and efficiency.

HYDAFIX AAC 10 complies with **ANSI A 118.1T ASTM C 1660 & C 270 and IS 15477:2019:Type 1 T EN:C1TE** standards, ensuring long-lasting performance, compatibility with a wide range of block types, and superior adhesion in thin bed mortar applications.

SURFACE APPLICATION MATERIALS

 HYDAFIX AAC 10 Blocks

 Concrete Hollow Blocks

 Cement Mortar Blocks / Bricks

 Lightweight Masonry Blocks

 Cellular Concrete Blocks

 Calcium Silicate Bricks

 Fly Ash Bricks

 Clay Bricks

RECOMMENDED SURFACES / SUBSTRATES

 Internal & External Masonry Walls

 Precast Concrete Elements

 Partition Walls

 Cement-Based Renders

 Load-Bearing and Non-Load-Bearing Walls

 Blockwork Foundations

APPLICATION AREAS

- | | |
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| <ul style="list-style-type: none">  Residential & Commercial Wall Construction  Wet Areas – Bathrooms, Toilets & Washrooms  Kitchens & Utility Areas  Basements, Foundations & Retaining Walls | <ul style="list-style-type: none">  High-Rise Building Walls  External Facades & Compound Walls  Educational & Institutional Structures  Industrial Infrastructure |
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PRODUCT HIGHLIGHTS

- ❖ **HIGH BOND STRENGTH** – Ensures secure adhesion with minimal settling
- ❖ **NO CURING REQUIRED** – Saves time and enhances efficiency
- ❖ **FLEXIBLE & IMPACT RESISTANT** – Withstands thermal and mechanical stress
- ❖ **HIGH COMPRESSIVE & TENSILE STRENGTH** – Suitable for structural applications
- ❖ **USER-FRIENDLY** – Easy to mix, apply, and clean
- ❖ **LONG WORKING TIME & POT LIFE** – Allows flexibility during installation
- ❖ **FAST & ECONOMICAL** – Minimizes construction time and material wastage
- ❖ **CONSISTENT QUALITY** – Uniform performance across applications
- ❖ **ADVANCED TECHNOLOGY FORMULATION** – Delivers durability and reliability

TECHNICAL DETAILS

ASTM DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAFIX AAC 10 VALUES
ASTM C 1660 DATA			
Splitting Tensile Strength	ASTM C1660	58 – 71 psi (0.40 – 0.49 MPa)	55 – 71 psi
ASTM C 270 DATA			
Compressive Strength	ASTM C109	Minimum 750 psi (5.2 MPa)	855 – 955 psi
Water Retention	ASTM C1506	Minimum 75%	90% – 95%
Air Content	ASTM C91	Maximum 14%	10.2% – 12.5%

IS DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAFIX AAC 10 VALUES
Compressive Strength	Appendix A	5.0 – 7.5 MPa	5.7 – 6.7 MPa
Consistency	Appendix B	130 – 150 mm	137 – 147 mm
Water Retention	Appendix C	Minimum 70%	87% – 92%

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION GUIDELINES

1. CHECK SURFACE & LEVELNESS

Ensure all block work surfaces are structurally sound, clean, and free of dust, oil, grease, curing compounds, or sealers. Remove any standing water or contaminants.

Note: Rough or uneven concrete surfaces should be levelled using appropriate cement-based underlayment to achieve a smooth finish.

2. TEMPERATURE & ENVIRONMENT CONDITIONS

Substrate temperature must be between 4°C to 32°C (40°F to 90°F). Installation may be done on a damp surface but not in standing water.

3. VERIFY ALIGNMENT & FLATNESS

Concrete slabs should be plumb and true to within 6mm in 3m (¼" in 10 ft). Check alignment regularly using a plumb line or level.

4. RECOMMENDED STANDARDS

For best performance and durability, adhere to AAC Block Manufacturer's guidelines, IS 6041, or other relevant national/international codes and best construction practices.

HOW TO MIX HYDAFIX AAC 10

1. MIXING RATIO

Mix 20 kg of **HYDAFIX AAC 10** powder with approximately 6 to 8 litres of potable water.

2. MIXING PROCESS

- Pour the required amount of water into a clean mixing container.
- Slowly add the powder into the water while mixing with a trowel or a low-speed mechanical mixer.
- Mix thoroughly for 3 to 5 minutes to achieve a smooth, lump-free, thixotropic mortar.

3. READY FOR USE

Allow the mortar to stand for a few minutes. Remix briefly without adding more water.

Apply within 3 hours (pot life) of mixing.

STEP-BY-STEP TILE APPLICATION GUIDE

1. SURFACE PREPARATION

- Ensure all surfaces are structurally sound, clean, and free from dirt, dust, oil, grease, curing compounds, and other contaminants.
- Surface temperature must be between 4°C to 32°C (40°F to 90°F) before application.
- Rough or uneven concrete surfaces should be levelled using a suitable underlayment to achieve a wood float finish or better.
- All slabs should be plumb and true to within 6mm in 3 meters (¼" in 10 ft).
- Surfaces may be slightly damp but not wet.

2. BLOCK PLACEMENT

- Ensure blocks and surfaces are dry and free from dust before application.
- Apply **HYDAFIX AAC 10** mortar in a 2–3 mm thin layer using a notched trowel.
- Place the AAC blocks over the adhesive bed while ensuring proper alignment and joint spacing.
- Fill joints with the same mortar mix using a trowel.
- Continuously check plumb and level to ensure verticality and proper bonding.
- Incorporate bond beams as per the site engineer's instructions to reduce cracking during service.

3. ACHIEVING FULL ADHESION

- Mix 20 kg of **HYDAFIX AAC 10** with approximately 6 to 8 liters of potable water.
- Add powder gradually into water while mixing manually or with a slow-speed mixer until a lump-free, thixotropic paste is obtained (3–5 minutes).
- Apply the adhesive uniformly to ensure full bedding contact between block and substrate.
- Avoid thick beds unless specifically instructed. Thin bed technology ensures optimal bonding, lesser wastage, and reduced shrinkage.

4. SPACING & CLEANING

- Maintain recommended joint spacing as per project requirements.
- Clean excess mortar from joints and block surfaces while still wet using a damp sponge or cloth.
- Tools and mixing equipment should be cleaned with water immediately after use.
- Do not allow mortar to harden on surfaces—remove immediately to avoid staining or adhesion issues.

5. SPECIAL CONSIDERATIONS

- Recommended for both interior and exterior thin-bed masonry construction.
- Avoid covering expansion joints with adhesive or mortar.
- Follow AAC block manufacturer's instructions or IS 6041 for high-quality, durable construction.
- Shelf life is 12 months in original sealed packaging if stored in a dry area off the ground.
- Product appearance: Grey, free-flowing powder.

PRO TIPS & PRECAUTIONS

- ✓ Use only potable water for mixing HYDAFIX AAC 10.
- ✓ Do not exceed recommended water quantity—over-watering reduces strength and adhesion.

- ✓ Mix only as much mortar as can be used within 2–3 hours.
- ✓ Avoid application on frozen or excessively hot surfaces.
- ✓ Use proper personal protective equipment (PPE) during application.
- ✓ Always follow proper construction practices and codes for structural integrity.
- ✓ Keep product in original sealed packaging until ready to use.
- ✓ Ensure adequate curing time before any finishing or plastering.

PRODUCT SPECIFICATIONS & STORAGE GUIDELINES

AVAILABLE PACKAGING

- 20 kg bag

COLOUR OPTIONS

- Grey

SHELF LIFE

12 months from manufacturing date when stored properly in sealed, original packaging.

STORAGE LIFE

- Store off the ground in a cool, dry area
- Ideal storage temperature: 10°C to 35°C
- Avoid:
 1. Direct sunlight
 2. High humidity or moisture
 3. Extreme temperatures below 5°C or above 35°C
- Ensure packaging remains sealed and undamaged

GROUTING INSTRUCTIONS

1. WAITING TIME

Begin block laying only after ensuring the substrate is structurally sound, clean, and free from contaminants like oil, grease, and loose particles.

2. RECOMMENDED PRODUCTS

Use **HYDAFIX AAC 10** polymer-based adhesive for optimal bonding performance with AAC and other lightweight masonry units.

3. APPLICATION TIP

- Always perform a sample patch to ensure desired bonding and application comfort.
- Ensure blocks are dry and surfaces cleaned properly before application.
- Use thin layers of 2 to 3 mm of **HYDAFIX AAC 10** mortar for laying blocks.
- Joints should be filled using a trowel and plumb lines must be checked continuously for alignment.
- Do not cover expansion joints with mortar.
- Protect freshly applied block work from direct sunlight and water exposure until the mortar sets (approx. 24 hours).

COVERAGE DETAILS

Coverage for AAC blocks of size 600mm x 200mm x 100mm using HYDAFIX AAC 10:

- 2 mm mortar bed thickness – 120 sq.ft. per 20 kg bag
- 3 mm mortar bed thickness – 80 sq.ft. per 20 kg bag
- 4 mm mortar bed thickness – 60 sq.ft. per 20 kg bag

FACTORS AFFECTING COVERAGE:

- Thickness of mortar bed (2–3 mm)
- Block size and joint spacing
- Substrate smoothness and uniformity
- Consistency of mortar mix (recommended: 20 kg powder with 6–8 L potable water)

SAFETY & APPLICATION GUIDELINES FOR HYDAFIX AAC 10

1. PERSONAL PROTECTION

- Wear protective gloves, clothing, and eye/face protection while handling.
- Keep out of reach of children at all times.
- For professional use only – not for consumer DIY applications.

2. EMERGENCY PROCEDURES

- Skin Contact: Wash immediately with plenty of clean water.
- Eye Contact: Rinse thoroughly with water for 15 minutes and seek medical attention.
- Inhalation/Ingestion: Seek immediate medical help if accidentally inhaled or ingested

3. MIXING INSTRUCTIONS

- Empty entire contents of **HYDAFIX AAC 10** powder with 6–8 litres of potable water.
- Pour water into a clean container, and gradually add **HYDAFIX AAC 10** while mixing.
- Mix using a slow-speed drill or manually for 3–5 minutes until a smooth, lump-free paste is achieved.
- Do not add more water than recommended.
- Mix only enough material that can be used within 3 hours (pot life).
- Pour mixture immediately into the application area as required.

4. SURFACE PREPARATION

- Ensure surfaces are between 4°C – 32°C (40°F – 90°F), structurally sound, and free from dust, oil, grease, or curing compounds.
- Remove loose particles, and level out rough or uneven concrete surfaces using Portland Cement underlayment. Surfaces can be slightly damp but not wet.
- Slabs should be plumb and true to within 6 mm in 3 meters (¼" in 10 ft).
- Do not apply **HYDAFIX AAC 10** over expansion joints.

5. INSTALLATION & PROTECTION

- Apply a 2–3 mm thick layer of **HYDAFIX AAC 10** mortar using a trowel.
- Lay **HYDAFIX AAC 10** on block surfaces and position blocks into place.
- Maintain joint gaps as specified by site engineers and fill joints with the same adhesive.

- Check wall plumb during laying to ensure alignment.
- Provide bond beams as recommended by the structural engineer to control cracking.
- Do not install tiles or stones directly over unplastered AAC walls—always plaster first and cure properly.
- Clean tools and containers with water while the mortar is fresh.

MAINTENANCE

- Clean tools and containers with water while **HYDAFIX AAC 10** mortar is fresh.
- Ensure block walls are plastered and cured before installing tiles or stones.
- Do not install tiles or stones directly over **HYDAFIX AAC 10** block walls.

PERFORMANCE LIMITATIONS

- Not recommended for soft, polished marble or delicate glazed tiles
- Movement joints are required to accommodate tile/stone expansion and prevent grout cracking
- This product is a solid epoxy grout and not a replacement for a dedicated waterproofing system – use a suitable waterproofing membrane in areas where moisture protection is required.
- Light colors may darken slightly with prolonged UV exposure.
- Maximum stain resistance is achieved 7 days after installation – protect from acids and harsh cleaners during this curing period

End of TDS