

Product Data Sheet

CasTech Block Fix GP

Nov-2025, Ver. 01.01



High-Performance Block Fixing and General-Purpose Masonry Mortar

DESCRIPTION

CasTech Block Fix GP is a premium, polymer-modified, preblended cementitious mortar developed for the rapid and durable installation of concrete blocks, clay bricks, lightweight blocks, and other compatible masonry units. Its factory-controlled formulation provides good workability, extended working time, high compressive strength, and reduced shrinkage, offering a consistent and efficient alternative to conventional site-mixed masonry mortar.

TYPICAL USES

- Laying concrete blocks, clay bricks, and lightweight masonry units
- General masonry construction and repair work
- Joint applications typically ranging from 3-10 mm
- Interior and exterior blockwork requiring consistent strength and reduced shrinkage

ADVANTAGES

Key advantages:

- Factory-preblended formulation for consistent site performance
- Extended working time of approximately 60 minutes
- High 28-day compressive strength
- Controlled shrinkage for durable masonry joints
- Good workability and ease of application
- High coverage and reduced on-site material handling

MIXING

Use a clean container and a mechanical mixer fitted with a suitable paddle. Measure 10.0–10.5 liters of clean water for each 50 kg bag.

Add the powder gradually to the water while mixing continuously for 3–5 minutes until a homogeneous, lump-free mortar is obtained.

Allow the mortar to stand for approximately 5 minutes, then remix briefly before application. Do not exceed the recommended water dosage, and do not add extra water after the mortar begins to set.

TYPICAL PROPERTIES

Appearance	Grey, free-flowing powder
Chemical base	Polymer-modified cementitious mortar
Wet density	Approx. 2.00 ± 0.05 kg/L
Water requirement	10.0-10.5 L per 50 kg bag
Water/powder ratio	Approx. 0.20–0.21 by weight
Recommended joint thickness	Approx. 3-10 mm
Working time	Approx. 60 minutes
Coverage	Approx. 12–16 m ² /50 kg at 3 mm
28-day compressive strength	≥20 N/mm ² - ASTM C109
Application temperature	+5°C to +40°C
Standard reference	ASTM C270, Type M
Packaging	50 kg bag

The values above are typical source values and may vary with water addition, mixing, masonry-unit absorption, joint thickness, temperature, curing, and workmanship.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Masonry units

The block or brick surfaces shall be sound, clean, and free from dust, oil, loose particles, and contaminants that may affect adhesion.

Moisture conditioning

Pre-wet highly absorbent masonry units as required. The units shall be damp but free from standing or running water at the time of application.

Base and alignment

Ensure the receiving surface and first masonry course are level and properly aligned before continuing with subsequent courses.

APPLICATION

Mortar placement

Apply the mixed mortar using a suitable trowel, notched trowel, or approved mechanical applicator. Spread an even bed suitable for the type and dimensional tolerance of the masonry unit.

Block placement

Place the masonry unit onto the fresh mortar and adjust it immediately to the required line, level, and plumb. Ensure full

Product Data Sheet

CasTech Block Fix GP

Nov-2025, Ver. 01.01

contact across the bed and vertical joints.

Joint control

Maintain a uniform joint thickness, typically 3–10 mm, unless otherwise approved for the specific masonry system. Remove excess mortar before it hardens.

Initial protection

Protect completed work from premature drying, direct sunlight, rain, and strong wind. Do not disturb newly completed masonry until sufficient strength has developed.

CURING

Lightly water-cure the completed masonry for 3 days by spraying approximately 3–4 times daily, subject to site temperature, humidity, and project requirements.

COVERAGE

Typical coverage is approximately 12–16 m² per 50 kg bag at an average thickness of 3 mm.

Coverage is theoretical and will vary with masonry-unit dimensions, surface condition, joint thickness, application method, and wastage.

CLEANING OF TOOLS

Clean tools and equipment immediately after use with water. Hardened material can only be removed mechanically.

APPLICATION TEMPERATURE

Apply only when the air and substrate temperatures are between +5°C and +40°C.

PACKAGING

- 50 kg moisture-resistant paper bags

SHELF LIFE

6 months from the date of manufacture when stored unopened in the original, undamaged packaging under the recommended conditions.

STORAGE

Store in dry conditions below +30°C and at a relative humidity below 60%. Keep bags sealed, off the ground, and protected from moisture, direct sunlight, and physical damage.

Do not stack pallets more than five layers high. Use stock

rotation and do not use material from damaged bags or material that has hardened because of moisture exposure.

LIMITATIONS

- Do not apply below +5°C or above +40°C.
- Do not apply to frozen surfaces or in rain.
- Do not exceed the recommended water dosage.
- Do not retemper mortar after it begins to set.
- Suitability for calcium-silicate bricks must be confirmed by testing.
- Protect freshly completed masonry from rapid drying and adverse weather.

HEALTH AND SAFETY

CasTech Block Fix GP contains cement and becomes alkaline when mixed with water. Avoid contact with skin and eyes. Wear suitable gloves, safety goggles, and a dust mask during handling, mixing, and application.

In case of eye contact, rinse immediately with plenty of clean water and seek medical attention. If swallowed, seek medical advice immediately. Refer to the latest Safety Data Sheet for detailed handling and disposal guidance.

Dispose of product waste and empty packaging in accordance with local regulations.

STANDARDS

The source technical data identifies ASTM C270, Type M as the mortar classification and ASTM C109 as the compressive-strength test reference.

COMPATIBILITY

- Concrete blocks
- Clay bricks
- Lightweight masonry blocks
- General masonry repair applications
- Calcium-silicate bricks only after representative compatibility testing

IMPORTANT TECHNICAL NOTE

The source TDS specifies a 3–10 mm joint thickness in the uses and application sections, while its technical-data table separately lists a 10–40 mm bed-layer thickness. The approved application range shall be confirmed by the CasTech Technical Department before external issue.

Product Data Sheet
CasTech Block Fix GP

Nov-2025, Ver. 01.01



TECHNICAL SUPPORT

CasTech provides on-site assistance and consulting services

on projects when requested. Technical data sheets on other CasTech products and guidance on their use are available on request.

CasTech MIDDLE EAST FZE

T6-04, Sharjah Airport Free Zone, Sharjah, UAE

P.O. Box: 121661 Tel.: +971-6-5489207

Fax: +971-6-5579879 Email: info@castechchem.com