

PATCH 40

HIGH STRENGTH REPAIR MORTAR
40MPa · CONCRETE STRUCTURES

PRODUCT DESCRIPTION

PATCH 40 is a high-strength repair mortar produced from high-strength cement, selected aggregates, silica fume, an expansive admixture and special polymer additives — developed by BUMATECH. It offers early strength development, non-shrink behaviour and high adhesion.

QUICK SPECIFICATIONS

PACKAGING	25kg/bag
COLOUR	Grey
WATER MIXING RATIO	5.00 - 5.25L per 25kg bag
COVERAGE	One 25kg bag yields 13 - 14 litres of mortar
MINIMUM THICKNESS	5mm per layer
COMPRESSIVE STRENGTH AT 28 DAYS	≥ 40.0MPa
BOND STRENGTH	≥ 1.0MPa
MIXING TIME	6 - 8 minutes
SUBSTRATE TEMPERATURE	8 - 35°C
SHELF LIFE	06 months (unopened bag)
STORAGE CONDITIONS	Cool, dry, well-ventilated place



ILLUSTRATIVE IMAGE Applying PATCH 40 to repair a damaged area of concrete



ILLUSTRATIVE IMAGE Repaired concrete element, monolithic with the substrate

USES

- Repair of **concrete structures damaged** by reinforcement corrosion
- Repair of **precast concrete units**
- **Benefits:** Early strength development · High adhesion · Non-shrink

SUBSTRATE REQUIREMENTS

- **Substrate temperature:** from **8°C to 35°C**
- **Cleaning:** the entire surface must be sound and clean, free of grease, paint, curing compounds and other contaminants
- **Dampening:** dampen the substrate with water; remove all excess water before patching — compressed air may be used to blow off unabsorbed water for the best result

MIXING

- The product **must be machine-mixed**, using a mixer or purpose-built equipment
- Pour **5.00 - 5.25L** water into the mixing drum
- Slowly add the powder component and mix at low speed, **300 - 500rpm**, until uniform
- Continue mixing for **6 - 8 minutes** until a plastic, uniform mix is obtained

APPLICATION

- Use **a steel trowel or spray equipment** to trowel or spray PATCH 40 into the area to be repaired
- Level and re-finish the surface with a steel trowel
- No curing required
- The product bonds strongly even to metal — wash tools while the mortar is still fresh; once hardened it can only be removed mechanically

TECHNICAL DATA

Property	Standard	Result
Compressive strength after 1 day	ASTM C349-24	≥ 15.0MPa
Compressive strength after 3 days		≥ 20.0MPa
Compressive strength after 7 days		≥ 30.0MPa
Compressive strength after 28 days		≥ 40.0MPa
Flexural strength after 28 days	ASTM C348-21	≥ 6.0MPa
Adhesion strength to concrete	ASTM D7234-21	≥ 1.0MPa

The above results and recommendations are based on laboratory testing; actual performance may vary depending on the application method and specific site conditions

SAFETY INFORMATION

- **Skin and eyes:** the product contains alkaline Portland cement; contact with perspiration or body fluids may cause skin irritation, mild burns or allergic reaction in sensitive individuals. Both dry and wet cement can cause serious eye injury on direct contact
- **Eye contact:** rinse immediately under gently running clean water for 10 - 15 minutes without rubbing the eye; if pain persists, seek medical attention at the nearest facility
- **Protective equipment:** Gloves · Safety goggles (when mixing) · Fine-dust mask (when mixing) · Protective clothing
- **Working environment:** work in a well-ventilated area, away from confined spaces, children and pets; avoid inhaling cement dust while mixing the dry material
- **Surplus material:** reseal the bag tightly after use to prevent moisture pick-up. Do not dispose of surplus material down drains — it may cause blockages; allow it to harden and dispose of it as construction waste
- Consult the **Safety Data Sheet (SDS)** latest edition on the official BUMATECH website, or contact our technical department

PRECAUTIONS & DISCLAIMER

- Always carry out a trial application on a small area before full-scale work, to assess adhesion, coverage and compatibility with the substrate under actual site conditions
- Do not add cement or admixtures to the product
- Minimum application thickness is 5mm for a single layer
- Apply only when the substrate temperature is between 8°C and 35°C
- Do NOT swallow and avoid inhaling product dust; wear a dust mask wherever product dust is present. Keep out of reach of children
- The figures in this document are established by laboratory testing under standard conditions; actual values vary with temperature, humidity, accompanying materials, application method and workmanship. It is the user's responsibility to verify suitability for the intended use
- BUMATECH accepts no liability for loss arising from use outside the intended purpose, application contrary to these instructions, or combination with incompatible materials not confirmed in writing; we reserve the right to update technical information without prior notice. Check the latest TDS edition on our website before each project

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PATCH 40
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