



# Geopatch EX

GEOPATCH EX is a proprietary blend of powders based on geopolymer technology used for low cost structural repair of depth greater than 20mm.

- ✓ Packed with premixed aggregates, requires only addition of water at site.
- ✓ No priming & curing required
- ✓ Highly cost effective for large volume repairs
- ✓ Forms tenacious bond with host material
- ✓ Can be opened to traffic in less than 2 hours

### Benefits

- ✓ Cost effective repair solution
- ✓ Fast setting.
- ✓ High early compressive strength
- ✓ Accepts traffic as early as within 2 hours
- ✓ Not affected by sulfates or chlorides
- ✓ 100% waterproof.

### PHYSICAL PROPERTIES

#### SET TIME ( at 30°C)

Initial setting time : 20-minutes

Final setting time : 30-minutes

Set time will further shorten at higher temperature site conditions.

#### COMPRESSIVE STRENGTH

24 hrs : 45 MPa

72 hrs : 50 MPa

28 days : 55 MPa

#### SPLITTING TENSILE STRENGTH

28 days : 4 MPa

**BOND STRENGTH TO CONCRETE:** 10 MPa

**WATER PERMEABILITY:** Depth of Penetration: 1.6mm (As per DIN 1048)

**SHRINKAGE:** None

**OPEN POROSITY:** Less than 1%

**UNIT WEIGHT:** 2450 kg/m<sup>3</sup>

#### MIXING GUIDELINES (at 30°C)

Use about 650 ml of water for 10 kg of powder. For mixing use a mixer blade turning @ 500 to 800 RPM. Initially the mixture may appear very dry. But do not add more water. After about 5 minutes of mixing it will form smooth slurry. At this point pour the mix in the repair area. Remember to wash off all the equipment immediately. Increasing the water content more than specified will drastically affect the final properties of the product. To ensure the performance of the product DO NOT break up individual units into smaller portions. Mix the entire content at one time.

**WORKING TIME:** GEOPATCH EX has an approximate working time of 20 minutes at 30°C

#### SITE TEMPERATURE

##### MIXING TIME\*

50° - 35°C : 3 - 5 Minutes

35° - 25°C : 5 - 7 Minutes

25° - 15°C : Until the slurry becomes warm - 10 Minutes

\* Above mixing times are based on using 20°C to 27°C temperature mixing water. During usage of higher temperature mixing water, the mixing time to be shortened appropriately.

\* The above mixing times are indicative only. Where mixing time is critical a trial mix is recommended

**SURFACE PREPARATION :** Surface must be sound, clean and free from loose particles or contamination to ensure proper bonding. Dry, clean and stable surfaces are required

**PACKING :** GEOPATCH EX is available in 10, 15 Kg buckets.

**SAFETY:** The use of dust mask, safety goggles and gloves is recommended.

**STORAGE LIFE:** GEOPATCH EX has a shelf life of 12 months from the date of manufacturing if stored in unopened original packing, under shade in dry and frost free conditions.

**USES:** GEOPATCH EX is ideal for high volume, cost effective structural repair of roads and bridges.