



# CONSOL PATCH ROAD

## Rapid Set and High Strength Repair Mortar

### DESCRIPTION

**CONSOL PATCH ROAD** is a one component, cement-based product, very rapid hardening repair mortar. It is ready to use blend which requires only the site addition of clean water to produce fast setting, high strength flowable repair concrete.

### RECOMMENDED FOR

**CONSOL PATCH ROAD** is easy to apply and is recommended for:

- Applications where traffic disruption must be minimized
- Structural repair material for concrete roadways, parking structures, bridges, dams, and ramps
- Application on-grade, above-grade, and below-grade on concrete surfaces
- Highway overlays and repairs
- Provides an economical solution for horizontal patching of concrete and mortar.

### BENEFITS

**CONSOL PATCH ROAD** provides the following properties of benefit such as:

- Easy to use, ready to mix powder
- Easy to mix, only add water
- Fast setting
- Rapid high early strength
- High final strength
- Resistant to shrinkage
- Pourable/flowable, easy and fast to place

### PRODUCT DATA

#### Form

Powder

#### Colour

Grey

#### Packaging

30 kg/bag

#### Mixing Density

~2.3 kg/L (3.3 L water per 30 kg bag)

#### Mixing Ratio

3.3 L per 30 kg bag (water per powder = 11% by weight)

#### Pot Life (30 °C)

~15 minutes after adding powder to the water

#### Shelf-Life

9 months if stored properly in original, unopened, and undamaged sealed packaging in dry conditions

#### Storage

Store in dry condition, cool, shaded place. Protect from frost, direct sunlight, and moisture.

#### Storage Conditions

Store in dry condition between 10 °C - 35 °C

### TECHNICAL DATA

#### Chemical Base

Cement, selected fillers and aggregates, special additives

#### Compressive Strength (ASTM C-109)

|                |                       |
|----------------|-----------------------|
| <b>3 Hours</b> | ~20 N/mm <sup>2</sup> |
| <b>4 Hours</b> | ~30 N/mm <sup>2</sup> |
| <b>1 Day</b>   | ~40 N/mm <sup>2</sup> |
| <b>3 Days</b>  | ~45 N/mm <sup>2</sup> |
| <b>7 Days</b>  | ~50 N/mm <sup>2</sup> |
| <b>28 Days</b> | ~55 N/mm <sup>2</sup> |

#### Flexural Strength

|                |                      |
|----------------|----------------------|
| <b>28 Days</b> | >7 N/mm <sup>2</sup> |
|----------------|----------------------|

#### Bond Strength (by pull-off test)

|                |                        |
|----------------|------------------------|
| <b>28 Days</b> | >1.5 N/mm <sup>2</sup> |
|----------------|------------------------|



#### Material Temperature

5 °C - 30 °C

#### Substrate Temperature

5 °C - 30 °C

#### Setting Time

~60 menit

## INSTRUCTION FOR USE

#### Surface Treatment

Prepare surface area by cleaning. Remove oil, grease and other bond-inhibiting materials. Repair area is not less than 10 mm deep.

Preparation work should be done by appropriate means. Obtain an exposed aggregate surface with a minimum surface profile of 3 mm on clean, sound concrete. To ensure optimum repair results, the effectiveness of decontamination and preparation should be assessed by a pull-off test. Saw cutting of edges is recommended.

The surface of the concrete must be hard and targeted to get good adhesion. Before applying, surface must be wetted to saturated surface dry (SSD).

#### Mixing

Put 3.3 liters of water added to the mixing vessel. Add slowly 1 bag (30 kg) of **CONSOL PATCH ROAD** while continuing to mix. Mix continuously for 3 minutes until a lump free and consistency is achieved. Use a mixing paddle or appropriately sized mortar mixer. Use a mechanically low speed drill (300 - 600 rpm). After allowing the mortar to rest for 3 minutes, remix it briefly before applying.

#### Application

Maintain the required minimum temperature during application and for at least 24 hours afterward to ensure optimal curing of the product. The prepared substrate should be pre-soaked-preferably for 24 hours, but at minimum 2 hours-prior to the application of **CONSOL PATCH ROAD**. Ensure that all excess water has been removed from the formwork before installation and that the formwork is properly resealed.

**CONSOL PATCH ROAD** should be poured into the prepared formwork until the void is completely filled. Apply the mortar to the desired thickness and level using a screeding bar, trowel, or wooden board. Thicker layers may be applied in smaller repair areas or where additional reinforcement is provided. Smoothing with a trowel or finishing with a float or sponge may be performed as soon as the mortar begins to stiffen. For additional technical information of **CONSOL PATCH ROAD** contact the technical services.

## CURING

Moist cure should commence immediately after finishing. If necessary, protect newly applied material from rain. In cold conditions, the repair area shall be covered with suitable insulating materials to prevent freezing.

## CLEANING TOOLS

Clean all tools and application equipment with water immediately after use. Cured material/hardened can only be mechanically removed.

## LIMITATION

The minimum ambient and substrate temperature shall be 7 °C and rising.

The minimum application thickness as a mortar shall be 10 mm.

Only potable water shall be used for mixing.

## HANDLING PRECAUTIONS

- Avoid contact with skin and eyes
- Wear protective gloves and eye protection during work
- If skin contact occurs, wash skin thoroughly
- If in eyes, hold eyes open, flood with warm water and seek medical attention without delay.

## HEALTH, SAFETY, AND ENVIRONMENTAL

For detail health, safety and environmental recommendations, please consult and follow all instruction on the Material Safety Data Sheet.