

# CHEMSEAL-40

## ANTI-CORROSION CEMENTITIOUS MORTAR FOR PROTECTING STEEL REINFORCEMENT RODS.

### WHERE TO USE

- Anti-rust protection of concrete reinforcement rods.
- Bonding promoter for repair mortars of concrete.

### SOME APPLICATION EXAMPLES

Prevents corrosion and restores alkalinity in reinforcing rods during concrete repair with Chemgrout compensating-shrinkage mortars or with normal cementitious mortars modified with synthetic resin latexes. It can be applied both below and above grade.

### TECHNICAL CHARACTERISTICS

**Chemseal-40** is a mortar based on polymers in water dispersion, cementitious binders and corrosion inhibitors, to be applied on reinforcing rods to prevent rust formation.

Once hardened, it is resistant to saline mist according to EN 15183 standards and impermeable to aggressive water and gases present in the atmosphere.

The anti-rust action of **Chemseal-40** is provided through:

- The presence of corrosion inhibitors which protect the metal surfaces from oxidation;
- Its high level of alkalinity;
- Its excellent adhesion to metal.

### RECOMMENDATIONS

- Do not dilute **Chemseal-40** with water during preparation or when setting has started.
- Do not add cement or aggregates to **Chemseal-40**.
- Do not leave sandblasted rods without protection for a long time. Apply **Chemseal-40** immediately after sandblasting.
- Do not apply **Chemseal-40** when the temperature is below +5°C.

### APPLICATION PROCEDURE

#### PREPARING THE RODS

To ensure that **Chemseal-40** is able to develop its anti-corrosion properties efficiently, it is essential that the rods to be treated are free from all surrounding degraded and carbonated concrete and from loose particles, grease, oil and rust.

Sandblasting is recommended to clean the rods down to white metal. If for logistic reasons this is not possible, vigorous brushing of the metal surface should be carefully and thoroughly carried out.

Additional or substitute rods must be prepared in the same way.

#### PREPARING THE PRODUCT

Pour 6-7 liter of water into a clean container and while mixing, slowly add **Chemseal-40** then mix vigorously for a few minutes to obtain a homogeneous mix.

Following these procedures, a brushable mortar, with a pot life of 60 minutes, is obtained.

#### APPLICATION

Apply two coats of **Chemseal-40** with a brush. The second coat can be applied approximately 6 hours after the first and preferably within 24 hours.

It is recommended that the surfaces of the rods be completely covered in one homogeneous coat. This is not difficult because brush application with **Chemseal-40** is extremely easy.

The total thickness of the two coats must be 1 mm.

Inevitably, during the application, the surrounding concrete will also receive treatment. This will not create any problems as **Chemseal-40** also greatly improves the adhesion of all mortars.

It is highly recommended to apply **Chemseal 40** entire substrate where the repair mortar to cover.

The application of the repair mortar (e.g. products of the Chemgrout line) that follows, can be carried out on cured **Chemseal-40** after approximately 6 hours at +20°C.

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### PRECAUTIONS TO BE OBSERVED DURING APPLICATION

The product can be applied when the temperature is between +5°C and +35°C. However, in hot weather the mixed material should not be exposed to direct sunlight, as the pot life will be reduced.

### CLEANING

While still fresh, **Chemseal-40** can be removed from brushes and tools with water. Once hardened, it can only be removed mechanically.

### CONSUMPTION

60 g/m of **Chemseal-40** for 8mm diameter rebar and 120 g/m of **Chemseal-40** for 16mm diameter rebar (1 mm thick coat of product applied).

### PACKAGING

**Chemseal-40** is available in 20 kg Bag.

### STORAGE

**Chemseal-40** may be stored for up to 12 months in its original packaging in a dry place.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Chemseal-40** contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed.

It can cause damage to eyes.

It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemicals.

In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention.

### TECHNICAL DATA (typical values)

#### APPLICATION DATA OF PRODUCT (at +20°C – 50% R.H.)

Colour of mix:	Grey
Consistency of mix:	brushable
pH of mix:	> 12.5
Application temperature range:	from +5°C to +35°C
Pot life of mix:	approximately 1 hour
Waiting time between each coat:	approximately 6 hours
Waiting time before applying repair mortar:	6-24 hours
Minimum thickness of Mapefer (mm):	1

