



# CHRYSO® Cim

## Bonding resin

### Description

CHRYSO® Cim is an aqueous solution of fine styrene-butadiene-type copolymer particles.

CHRYSO® Cim is very stable in an alkaline environment and is perfectly compatible with hydraulic binders.

**CHRYSO® Cim :**

- increases plasticity, cohesion and adhesion to mortar supports, into which it is added,
- improves mortar tensile and abrasive strength and resistance to impacts,
- is insensitive to hydrolysis, and makes it possible to produce structures which will be in contact with water - even permanent - sea water included.
- decreases Young's elasticity modulus, prevents crazing, reduces shrinkage and dusting,
- improves mortar waterproofing and resistance to oil, grease, fuel and poor acid.

### Characteristics

- Nature: liquid
- Colour: milky white
- Density:  $1.02 \pm 0.01$
- pH:  $10 \pm 2$
- Freezing point: about  $- 8^{\circ} \text{C}$
- Dry extract (halogen) :  $46\% \pm 2\%$
- Flow time (AFNOR 2.5 cup):  $50 \pm 5 \text{ s}$

### Packaging

- Drums of 20 L
- Barrels of 60 L
- Other packaging: please contact us

### Application

#### Domains of application

- Bonding grout for coating and screeds
- Cement-based coating or lime plaster coating
- Waterproof coatings for linings, reservoirs, retention tanks and swimming pools
- Water-repelling and bonding for plaster based coating
- Second layer cement screeds without picking the support
- Anti-sawdust and anti-dust screeds with special aggregates and cement,
- Resurfacing mortars, and reshaping mortars for angles and spalling
- Bonding mortars to seal two concrete layers
- Mortars for precast elements, tiling, directional islets or concrete or coated curbs
- Jointing and draught proof mortars for masonry, chimney stacks, flashing, etc.
- Floor repairs (potholes).
- Grout for surface waterproofing treatments, cover of foundation bitumen coatings, correction of facing defects, injection and crack fill-in

### Method of use

Volume guidelines:

- for mortars:  $50\text{g}/\text{m}^2/\text{cm}$  thickness,
- for bonding grout:  $110\text{g}/\text{m}^2/\text{mm}$  thickness.

#### Preparation

Preparation of the substrate: substrate must be in good condition, firm and clean, free from laitance, non-adherent areas, and grease. Moisten substrate to saturation point and clean. Temperature must be over  $5^{\circ}\text{C}$ .

##### A) Preparation of CHRYSO® Cim solution

1 part of CHRYSO® Cim and 2 parts of water.

This solution is used for all mixing operations except plaster finishes.

##### B) Preparation of mixture for bonding grout, granulated finishes and grout using CHRYSO® Cim

- 50 kg of cement,
- 35 L of sand (0/3 mm).

Mix to a creamy consistency with solution A (average of 1 L of solution A for 3.5 kg of dry mix).

##### C) Preparation of mortar using CHRYSO® Cim

- 50 kg of cement,
- 35 L of sand (0/3 mm).

Mix to desired consistency using solution A.



## CHRYSO® Cim

### Binding resin

#### Method of use (continued)

Mix by hand, as for a normal mortar, or in a cement mixer or agitator, until a homogeneous consistency is obtained. Do not mix for a long time.

#### Application

##### ▪ Coating

After preparing the substrate as described under "Preparation", apply a scratch coat using mixture B and leave to harden (until it cannot be scratched with a fingernail). Apply mortar C in one or more coats, depending on the desired thickness and strike off, but do not finish with trowel.

Apply the top coat with mortar C, using sand sieved through a 0/2 mm riddle, and finish with a float and/or trowel.

Lime plaster finishes are made of:

- 50 kg of cement,
- 40 kg of lime,
- 150 L of sand.

If applying coatings to extremely damp or seeping substrates (shaft linings, waterproof coatings), add from 2 to 2.5 L of **CHRYSO® Xel CLS** to 100 kg cement to the scratch coat.

Gripping and water-repelling plaster finishes are obtained by preparing a special solution composed of 1 part of **CHRYSO® Cim** and 4 parts of water.

Prepare mortar composed of: 25 kg of plaster, 75 kg of sand and 25 L of solution A.

Spray a 3-5 mm layer of liquid mortar over the prepared substrate.

Leave to harden and apply pure plaster finish mixed with the solution (using method given in DTU 25-1).

##### ▪ Screeds

Prepare the substrate as described under "Preparation". Apply a 2-3 mm layer of slurry B with a broom. Spread a layer of screed made from mortar C and mixed to the consistency of "damp soil" over the fresh grout (slurry B should still be fresh). Strike off and float and/or smooth with a trowel.

Protect from dehydration by spraying with solution A (150 g/m<sup>2</sup>) 1 or 2 hours after application.

Moisten after 24 hours for a period of 3 days.

To improve resistance to wear and corrosion, replace mortar C with mortar composed of:

- 50 kg of cement,
- 40 kg of hard aggregate finishing,
- 50 L of sand (0/3mm).

##### ▪ Resurfacing and reshaping

Prepare the substrate as described under "Preparation". Prepare mortar C using sand (0/2 mm) mixed to a firm consistency. Brush the substrate with solution A into soaking. Apply the mortar before dry (when still tacky). Strike off or float and smooth with a trowel.

##### ▪ Construction joints

Use a pressurised water jet to wash the concrete at the construction joints. Prepare mortar C with a plastic consistency and spread over the wet surface to a thickness of 2-3cm. Pour concrete immediately, placing it carefully (with rodding nor vibration), to ensure a good connection between the concrete and the mortar.

##### ▪ Bedding mortars

Precast elements: moisten and prepare the substrate as described under "Preparation". Apply mortar C mixed to a plastic consistency to the fixed part and immediately set the precast element on it, forcing a small amount of mortar round the outside. Remove the excess before finishing the joint.

Tiling: To lay vertical tiling on unsurfaced or masonry concrete, prepare the substrate and lay the tiling in the normal way, using mortar C.

To lay floor tiling, prepare the substrate as described under "Preparation".

Prepare special mortar composed of 1 part of cement and 3 parts of sand (100 L of sand to 1 bag of cement) mixed with solution A.

Spread the mortar and strike off. Lay the tiling. Tap with a hammer to force a small amount of mortar into the joints. Spread the mortar on an area sufficiently small to lay tiles before setting. Treat the joints using laitance made of white or grey cement mixed with solution A.

##### ▪ Joints and roofing

Scrape out joints to a depth of a few centimetres, if necessary. Wash using a pressurised water jet. Apply mortar C to the wet substrate. Ensure that joints are not too deep or protruding, according to DTU 20-11.

Mortar C is also used to carry out waterproofing repairs on roofing (flashing, chimney stacks, reveals and ridge bedding).

##### ▪ Floor repairs

Prepare the substrate as described under "Preparation". Apply slurry B with a broom and spread mortar C over the fresh grout. Strike off and smooth with a float or trowel.

##### ▪ Substrate treatment

(water-proofing or overlapping).

Clean and moisten substrates and apply slurry B made with fine sand (0/1 mm), mixed to a creamy or liquid consistency. Brush on 1 or 2 layers, leaving 4 to 5 hours between each application.



## CHRYSO<sup>®</sup> Cim

### Binding resin

#### Precautions

- Shake product before use.
- Store away from frost.
- If product freezes, place at 20° C for a few hours and shake well to homogenise.
- Shelf life: 12 months.

#### Safety

This product is classified as "harmless". In case of exposure, it is recommended to wear your protective equipment.

Before use, refer to the safety data sheet on our internet site [www.chryso.com](http://www.chryso.com).

*The information contained in this document is given to the best of our knowledge and the results from extensive testing. However, it cannot in any case be considered as a warranty involving our liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. Our specialists are at the disposal of the users in order to help them with any problem encountered.*

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