

## Two components, High Mechanical and Chemical Resistance, Transparent Epoxy.

### DEFINITION

**Novo EP- CRYSTAL** is two components, solvent free, non-pigmented liquid epoxy resin

- It is used as a coating where outstanding chemical resistance and mechanical stresses are major Requirements.
- It can also be mixed with considerable amounts of mineral aggregates to produce, non-shrink, multi - purpose epoxy mortar with high mechanical and chemical properties.
- It can be used in drinking - water tanks and food stores.

### FIELDS OF USE

**Novo EP- CRYSTAL** Used as:

- A protective coating for concrete floorings subject to chemical attack and high mechanical stresses.
- Can be used as screed for industrial floors.
- Repairing mortar for concrete structure.
- Filling of concrete cracks.
- Bonding mortar for most of the building materials and fixing dowels.

### ADVANTAGES

- It is high resistance against mechanical stresses and chemical effects.
- Ready to use after mixing the 2 components.
- Adding fillers to **Novo EP- CRYSTAL**, enables producing variety of epoxy mortars in different consistencies according to the quantity of added fillers.

### PHYSICAL PROPERTIES @ 25 C°

DESCRIPTION	RESULT
Color	Transparent
Solid content (by weight)	100 %
Density	1.11 ±0.02 kg/l
Mixing ratio	A: B by weight 2: 1
Pot life	30 minutes
application temperature	5°C -45 °C
Initial setting time	8 hours
Final setting time	24 hours
Full hardness	7 days
Recoating time	18-24 hours

#### NOVOCHEM S.AE

المقر الرئيس والمصنع

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Headquarters and Factory

Egypt - Giza- 6<sup>th</sup> of October City - 3<sup>rd</sup> Industrial Zone - Blocks 91,102,103

### Mechanical properties for mortar

- Density 1.11 kg/l
- Compressive strength 500 - 1000 kg/cm<sup>2</sup>
- Flexural strength 200 - 400 kg/cm<sup>2</sup>
- Tensile strength 150 - 250 kg/cm<sup>2</sup>
- Bond strength > concrete
- Abrasion resistance 15 mg

### Chemical Resistance

Sulphuric acid 50%	ex
Hydrochloric acid 20%	ex
Phosphoric acid 50%	good
Nitric acid 10%	ex
Acetic acid 5%	ex
Sodium hydroxide 50%	ex
Potassium hydroxide 50%	ex
Ammonium nitrate	ex
Fuels Petrol	ex
Benzene	good

### DIRECTIONS FOR USE

#### (A) SURFACE PREPARATION

- The substrate must be capable of resisting the intended mechanical stresses (C28>250 kg/cm<sup>2</sup>).
- The concrete surface must be dry (dampness not more than 4 %). Free of dust and laitance, oil, grease and other impurities which can affect the adhesion.

#### (B) MIXING

- Component B (hardener) should be added to component A (resin) and mixed together using a suitable mechanical mixer for a period of 3 minutes. The velocity of the mixer must not exceed 300 r.p.m.
- In the case of mortar, the filling material is added to the mixture and mixed again for a period of 3 minutes.
- The mixture is then transferred to a larger clean vessel; all materials stacked to the walls of the original container must be scraped off with a knife and added and renewed stirring.

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### **RATE OF CONSUMPTION**

- 0.50 kg/m<sup>2</sup> for the primer coat.
- 1.5kg/m<sup>2</sup>/mm thickness for topping layer.

### **STORAGE**

12 months under national regulations (dry, cool, and far from heat and ignition).

### **PRECAUTIONS**

- This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to technical Documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible representative for approval before work.

### **HEALTH AND SAFETY**

- Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

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