

CRYST ELASTIC[®]

Article-No.: 05400

2 K FLEXIBLE WATERPROOFING COATING

DESCRIPTION

CRYST ELASTIC[®] is a two-component, hydro active, highly elastic, cement and rubber-based sealing coat. CRYST ELASTIC[®] consists of a cementitious powder component (component A) and low viscous rubber dispersion (component B). These two components chemically react when mixed to produce a firm, yet still highly flexible coating that can be simply applied by stiff brush, roller, spray or trowel to obtain the desired texture. CRYST ELASTIC[®] penetrates into the pores of the substrate and seals it to provide a flexible and elastomeric waterproof membrane upon curing. CRYST ELASTIC[®] is a flexible reactive waterproofing system for waterproofing inside or outside, above grade or below grade, under masonry, and under tiles.

FEATURE AND BENEFITS

- Environmentally friendly
- Interior and exterior use.
- Ideal for waterproofing above or below grade.
- CRYST ELASTIC[®] also design to be cementitious binders for tile, ceramic, and marble.
- High durability to long-term weathering effect.
- Allow the substrate to breath.
- Effective against hydrostatic pressure.
- Excellent abrasion resistance and mechanical.
- High adhesion properties on many substrates including concrete, cement mortars, stone, and masonry.
- Non-flammable and non-toxic – ideal for potable water tanks.
- Highly elastic with good crack bridging ability.

FIELD OF APPLICATION

Uses for all types of waterproofing coating is required or desired (Block – Brick – Stone – Concrete – Mortars):

- Exterior basement walls, plinths, foundations, floor slabs as a horizontal barrier, under masonry, under tiles.
 - Concrete surfaces of walls and rafts or slabs to earth-retained structures such as habitable basements, car parks, plant rooms, Bridges, and lift pits.
- Water containment: water tanks, Water towers and storage tanks.
- Marine structures.
- Swimming pools, saunas, jacuzzis, and pump rooms.
- Wet area: bathrooms, shower, kitchens, and laundries.
- Exterior area: roofs, terraces, and balconies.
- Before the application of tiles bonded with adhesives.

MATERIAL PROPERTIES

Base material:	polymer + mortar combination
Appearance:	light grey or white
Mixed density:	approx. 1.70 g/cm ³
Application temperature:	+8°C up to +40°C
Service temperature:	-15°C up to +80°C
Pot life (30°C):	approx. 45 minutes, depend on temperature
Odour:	Low - Characterised as polymeric

TECHNICAL DATA

Tensile strength:	≥ 4.5 N/mm ²
Elongation% at break:	250%
Crack bridging ability:	≥ 2.5 mm
Adhesion strength:	> 2.0 N/mm ² at 28 day
Abrasion Resistance:	>180 mg
Compressive strength:	≥ 8.0 N/mm ²
Full curing time:	7 days
Penetration under positive pressure (DIN 1048):	NIL (7 bar)
Penetration under negative pressure (DIN 1048):	NIL (3 bar)
Toxicity:	Non Toxic
Reaction to fire:	Euro, class E
Time between re-coat:	approx. 1.5 to 4 hrs. depending on climate conditions
Coverage rate at 1 mm wet	
Coat thickness:	20-25 m ² per 30 kg set
Root Resistance:	No punctures, tested with Lupinus albus

DIRECTION FOR USE

Surface preparation:

The surface must be mineral, dry, or light humid, sound, and clean. Bonding inhibiting agents such as grease, oil, formwork oil, and all loose particles and dust must be removed before the application of CRYST ELASTIC®. The damaged area like cracks, holes, or cavities has to be chased out, and filled with CRYST MORTAR. Tie rod ends and other steel must be cut back to a minimum depth of 2 cm before patching.

Product mixing:

Add Component B into a clean mixing bucket and mechanically stir drill mixer slowly and mix in as much Component A until a lump free, homogenous mass with either a slurry or sprayable consistency is achieved. If the mixture starts to set, do not add more water; simply re-stir to restore workability. Only mix as much material as can be used within 45 minutes. Allow to stand for at least 3 minutes then briefly remix.

Mixing ratios:

Mix 20 Kg of CRYST ELASTIC® Component A to 10 liters of CRYST ELASTIC® Component B.

Application:

Dampen surface with clean water prior to product application. Uniformly apply the first coat with a short bristle brush or roller, making sure to fill in all surface pores and voids. For maximum waterproofing performance, apply a second coat after first coat has dried for 2 hours. The maximum recommended thickness for these methods of application is 1 mm per layer in at least 2–3 layers, to a total thickness of at least 2 mm. For high presser of water should be apply 3 layers in total thickness 3 mm.

Brush application: Apply CRYST ELASTIC® In 2 directions (diagonally opposite / crosswise).

Roller application: Apply CRYST ELASTIC® exerting good and even pressure onto the substrate.

Trowel application: apply CRYST ELASTIC® by trowel in at least 2 layers, to a total thickness of at least 2 mm.

Spray application: CRYST ELASTIC® can be applied with suitable spray equipment than dependent on the exposure conditions, spray apply one or two coats in a circular movement.

Application rates:

Vertical & Horizontal surfaces: CRYST ELASTIC® at 1.5 kg/m² per coat (1mm thickness) applied by brush, roll or spray.

Construction joints: CRYST ELASTIC® at 1.8 kg/m² per coat (1mm thickness) applied by brush in concrete Joints, pipes or anywhere else in the structure must also be sealed and made watertight.

NOTES:

- Do not Apply CRYST ELASTIC® for thick coatings (more than 2 mm per coat).
- Do not add cement, aggregates or water to CRYST ELASTIC®.
- At right angles, pipe penetrations, drainages, it is recommended to embed a fibre mesh sandwich between the coatings.
- Allow at least 48 hours to cure before subjecting to foot traffic.
- Do not add more water to the mix.
- Layer Thickness Minimum 1 mm with constant thickness, applied in minimum 2 layers (maximum recommended thickness per layer is 1 mm)
- Protect from rain for at least 24–48 h after application.
- Clean all tools immediately with water after use.
- To fully activate the material may require 7 days.
- Store in a dry environment.
- For more detailed instructions, or information concerning the compatibility of the CRYSTARM® application contact the CRYSTARM® Technical Department or your local CRYSTARM® representative

RECOMMENDED TOOLS

Brush, roller, gloves, safety glasses, and stirring mixing machine.

PACKAGING

CRYST ELASTIC® is available in:

Component A: 20 kg bags or pails.

Component B: 10 l gallon

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

STORAGE & SHELF LIFE

Keep CRYSTARM products must be stored dry and at a temperature of no less than 45°F (7°C). 12 months is the maximum shelf life when stored under proper conditions in original unopened packaging.

SAFETY HANDLING

CRYST ELASTIC® is made of Portland cement and silica sand may irritate your eyes and skin. Take adequate precautions, such as wearing protective gloves and using breathing apparatus if applied in enclosed environments. If contact is made, flush areas with lots of water. For further information please refer to Safety Data Sheet. KEEP OUT OF REACH OF CHILDREN.

CRYSTARM®

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WARRANTY: The Manufacturer warrants that the products manufactured by it conform to the formulation standards contained in all components in their proper proportion and are free from material defects. If any of the products are found to be defective the subsequent liability to The Manufacturer shall be limited only to the replacement of the product proven to be defective and shall not be liable for any other claim or for incidental or any consequential damages that may arise directly or indirectly with the said defective product. The user shall determine the suitability

of the product for its intended use and the user assumes all liability in connection therein and the manufacturer shall not be liable save for terms of this warranty.