

CRYST FLEX[®]

Article-No.: 05100

FLEXIBLE WATERPROOFING COATING

DESCRIPTION

CRYST FLEX[®] is a one-component, elastic sealing coat with a special polymers content that penetrates into the pores of the substrate and seals it permanently. CRYST FLEX[®] is ideal for waterproofing all load-bearing and mineral substrates with sufficient strength. as well as It accommodates slight movement in cracks and at correctly specified movement joints. CRYST FLEX[®] is used for permanently securing interior and exterior waterproofing of buildings against pressurized water.

FEATURE AND BENEFITS

- Environmentally friendly.
- One-component product, only water needs to be added.
- Interior and exterior use, above or below grade.
- Salt and chemical resistance.
- Protects reinforcing steel against corrosion
- Protects against concrete carbonation
- Also designed to be a cementitious binder for tile, ceramic, and marble.
- High durability to long-term.
- Effective against extreme hydrostatic pressure from either positive or negative surface of the concrete.
- Adjustable consistency, easy to apply by brush or trowel.
- 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.
- Very good crack-bridging ability.
- Seamless and jointless coating when applied continuously.

FIELD OF APPLICATION

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

- Below grade: basements, elevator pits, parking structures and foundations, concrete pip, and external wall surfaces to be backfilled in the ground.
- 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 ceramic tiles bonded with adhesives.
- Inside waterproofing of negative water pressure of walls and floors in basements.

MATERIAL PROPERTIES

Form:	powder
Appearance:	light grey
Bulk Density:	approx.1.8 g/cm ³
Application temperature:	+8°C up to +40°C
Pot life (30°C):	approx. 45 minutes, depend on temperature

TECHNICAL DATA

Adhesion strength:	> 2.0 N/mm ² at 28 day
positive pressure (DIN 1048):	NIL (7 bar)
Penetration under negative pressure (DIN 1048):	NIL (3 bar)
Crack bridging ability:	≥ 1.25 mm
Toxicity:	Non Toxic
Abrasion Resistance:	>200 mg
Reaction to fire:	Euro, class E
Time between re-coat:	approx. 1.5 to 4 hrs. depending on climate conditions

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 FLEX®. 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. The small voids can be repaired with CRYST FLEX® with adjustable water (reduce the water to be thick slurry).

Product mixing:

Add clean water into a clean mixing bucket and mechanically stir drill mixer slowly and mix in as much CRYST FLEX® 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 30 minutes. Allow to stand for at least 3 minutes then briefly remix.

Mixing ratios:

Mix 20 Kg of CRYST FLEX® to 5 – 6 liters clean water.

Application:

Dampen surface with clean water just 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 pressure of water should be apply 3 layers in total thickness 3 mm.

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

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

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

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

Application rates:

Vertical & Horizontal surfaces: CRYST FLEX® at 1 - 1.5 kg/m² per coat applied by brush or spray.

Construction joints: CRYST FLEX® at (1.5 kg/m²) per coat 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 FLEX® for thick coatings (more than 2 mm per coat).
- Allow at least 48 hours to cure before subjecting to foot traffic.
- At right angles, pipe penetrations, drainages, it is recommended to embed a fibre mesh sandwich between

the coatings.

- 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 3 days.
- 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

Hard brush, trowel, roller, gloves, safety glasses, and stirring mixer machine.

PACKAGING

CRYST FLEX® is available in 20 kg bags or pails.

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 FLEX® 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®

Drescherstraße 53,
D-71277 Rutesheim, GERMANY
TEL +49 (0) 7152 300 330
FAX +49 (0) 7152 300 355
Email info@crystarm.com
www.crystarm.com



CRYSTARM®

Drescherstraße 53, D-71277 Rutesheim

EN 1542, EN 1062-7

CRYST FLEX®

Coating for protection and repair of concrete structures protection against ingress (Class 2.2 (C))

Tensile adhesion strength: $\geq 2.0 \text{ N/mm}^2$

Crack-bridging: $\geq 1.25 \text{ mm}$

Reaction to fire: Class A1

Coefficient of thermal expansion NPD

Release of dangerous substances NPD

Water vapour permeability: Class I < 5 m

Capillary water absorption

and water permeability: $\leq 0,1 \text{ kg/m}^2 \times h_{0,5}$

Impermeability to water under pressure (5 bar for 7 days of

positive & negative): No penetration

Reaction to fire: NPD

Dangerous substances: NPD

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.