

## CRYST SELF-LEVELING®

Article-No.: 07500

### SELF-LEVELING FLOOR SURFACE

#### DESCRIPTION

CRYST SELF-LEVELING® is a single-component, cement-based, polymer-modified, smooth-flowing, economical, pumpable, fast-setting floor self-leveling underlayment used for repairing, leveling, and coating concrete surfaces. as well as used for profile-oriented maintenance, and cosmetic repair of damaged spots on concrete. When mixed with water it forms a very fluid and flowing mixture, perfectly leveling, with easy application, and good adhesion to the support. CRYST SELF-LEVELING® applied in thicknesses between 3 and 25mm, giving a super flat finish ready to receive final floor coverings including tiles, carpets, resinous flooring systems, parquet, ...etc.

#### FEATURE AND BENEFITS

- Environmentally friendly.
- Ready to use with addition of water.
- Easy to place by pump or manual application.
- Highly durable.
- Excellent bonding strength.
- Highly fluid for pumped or poured application.
- Crack and shrink resistant.
- Rapid high strength gain.
- Ready for limited foot traffic in four hours.
- Reduced sound transmission.
- Moisture resistant.
- Contains zero volatile organic content and is safe for use both outdoors and in confined indoor spaces.

#### FIELD OF APPLICATION

CRYST SELF-LEVELING® can be used internally as screed on concrete for existing floors or under the tiles, carpets, resinous flooring systems, parquet, or other types of floors laying.

- Aisleways, manufacturing, storage, and shipping.
- Distribution centers and warehouses.
- Distressed and worn concrete floors.
- Rain-damaged slabs.
- Parking garage floors.
- Public utilities.
- Convention hall floors.
- Showrooms.
- Floors are designed to meet a specific flatness.

#### PROPERTIES MATERIAL

Form:	powder
Apperance:	grey
Bulk Density:	approx.1.3 g/cm <sup>3</sup>
Application temperature:	+8°C up to +40°C

#### TECHNICAL DATA

Compressive strength:	28 days	42 N/mm <sup>2</sup>
Flexural Strength:	28 days	8 N/mm <sup>2</sup>
Tensile Bond Strength:	28 days	1.5/mm <sup>2</sup>

Flow @ 10 minutes:	150 mm
Cracking:	NONE through 28-day test
Type Failure:	Bond
Processing time:	approx. 25minutes
Initial Set time:	approx. 35minutes
Hardening time:	approx. 45minutes

## DIRECTION FOR USE

### Surface preparation:

Concrete substrate must be cleaned immediately prior to primer and topping application should be free of dust, oil, curing compounds, paints, coatings and/or any other matter that may cause loss of bond. Remove any loose, frozen, broken, carbonated concrete. Shotblasting equipment is recommended for achieving mechanical removal of unsound concrete, coatings, curing compounds, sealers, etc. Joints, cracks and drilled or sawed holes should be filled or grouted to prevent seepage of primer and underlayment. Joints in substrate must be reflected (tooled or sawed) in applied topping.

### Priming:

The substrate must be treated with CRYST BOND® to aid in bonding CRYST SELF-LEVELING® to substrate and to avoid “pinhole” caused by entrapped air in substrate. CRYST BOND® is a synthetic resin, high penetrating primer that can be applied by brush or roller on to the cleaned surface area, The primer should be left to achieve a tack-free condition before applying the top coat. Extremely porous concrete may require a second coat of primer if the substrate is excessively porous. CRYST BOND® may be applied up to 24 hours before application of topping.

### Mixing:

Add 4 liters of clean water into a clean mixing bucket for 20 Kg bag of CRYST SELF-LEVELING®. Add the product to the water and mechanically stir drill mixer with a low-speed with a suitable paddle for 2 minutes scraping sides and bottom of the can, until a uniform, lump free, homogenous mass with either a slurry or sprayable consistency is achieved. Allow to stand for at least 3 minutes then briefly remix again for 30 seconds. 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.

### Application:

Pour or pump the mixed material onto the primed surface and apply by trowel or pin screed rake to the required thickness, but not less than 3 mm. Roll thoroughly with a spiked roller in two directions to remove any entrapped air. Larger areas can be divided with wooden battens to control the pumping volume and determine the layer thickness to be applied. CRYST SELF-LEVELING® can be applied for thickness from 3 up to 25 mm per coat. For applications over 25mm in thickness use CRYST SELF-LEVELING PLUS®

### Application Rate:

One 20 kg bag of CRYST SELF-LEVELING® mixed with 4 liters of clean mixing water will yield approximately 2.50 m<sup>2</sup> of mixture @ 5 mm in thickness.

### Curing:

CRYST SELF-LEVELING® is self-curing. It is walkable in 3-4 hours @ 25°C. Wait 24 hours or more before installing floor covering or light traffic. If applying a protective coating system, verify compatibility by installing a test application.

### NOTES:

- This product is ready to use with the addition of water. DO NOT add any materials or additives to mixture other than those described above.
- DO NOT use on floors that will be exposed to acids (or their salts) or other materials that may seriously and/or rapidly attack the Portland cement.
- During application, protect topping from direct sunlight, wind, rain, snow and other forms of moisture.
- 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

Trowel, spatula, gloves, and safety glasses, stirring mixing machine.

## PACKAGING

CRYST SELF-LEVELING® 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). one year is the maximum shelf life when stored under proper conditions in original unopened packaging.

## SAFETY HANDLING

CRYST SELF-LEVELING® 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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CRYSTARM®  
Drescherstraße 53, D-71277 Rutesheim  
EN 1504-3  
CRYST SELF-LEVELING®  
for the structural and non-structural protection and  
repair of concrete structures  
EN 934-2:T9

Compressive strength	Class R3
Chloride ion content	≤0,15%
Adhesive bond:	NPD
Restrained shrinkage/expansion	NPD
Elastic modulus:	NPD
Carbonation resistance	NPD
Thermal compatibility	NPD
Reaction to fire:	NPD
Release of 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.