



DESCRIPTION

TECHCRYST-SUPER is a special & integral Waterproofing coating / Admixture made of a mixture of cements, carefully controlled aggregates and special organic and inorganic additives. Its special formula improves the osmotic effect of the application allowing the penetration in the concrete through its capillary system. The product crystallizes inside the sealing, waterproofing and protecting the concrete structure. It has been designed to be applied not only on fresh or set concrete, pre-cast concrete, concrete blocks or cement plasters but is also suitable for applications in bricks and masonry.

APPLICATION AREAS

- Waterproofing and coating for drinking water tanks
- As a waterproof coating for exterior and walls
- Basements and below-grade structures subjected to positive or negative water pressure
- Waterproofing and protection of concrete foundations, retaining walls and foundation slabs
- As a waterproof coating for concrete blocks and prefabricated panels
- As a decorative, waterproof finish for silos and cooling towers in thermal plants
- Repairing and waterproofing irrigation channels
- As a coating to waterproof dams and retaining walls
- To protect and waterproof concrete in water treatment plants
- Waterproofing tunnels and shafts
- Waterproofing swimming pools

TECHNICAL DATA

Appearance	Grey or white powder
Maximum aggregate size (mm)	0.63
Powder density (gm./ cm ³)	1.40 ± 0.050
Pot life after mixing (approx. minutes, 20 °C)	30 min
Compressive strength (MPa)	> 40
Flexural strength (MPa)	> 8
Waterproofing pressure (ATM)	> 10
Adhesion on concrete (MPa)	> 2
Suitability for contact with drinking water (According to British Standard 6920 and RD 140/2003)	Approved



ADVANTAGES

- Suitable for use in contact with drinking water.
- The penetration inside concrete provides internal sealing and protective effect. It seals crack up to 0.4 mm.
- 100% waterproof coating, even in permanent immersion applications subjected to high pressures.
- For indoor applications, especially basements, the coating resists hydrostatic pressure from groundwater.
- Can be applied on dampened surfaces, being easy to use free of future maintenance costs.
- Resists the corrosive effects of salt water and atmospheric pollution.
- Longer lasting than paints and other coatings.
- Once it sets, can be painted over. It can also be covered with ceramic tiles as in swimming pools or decorative outdoor murals.
- Allows the substrate the water vapour diffusion.

DIRECTION FOR USE

1. PERPARATION OF THE SURFACE

The surface to be coated must be solid and clean, free of all traces of paints, coatings, efflorescence, loose particles, grease, oil, demoulding agents, dust, gypsum plaster, etc. Remove by water pressure cleaning, sand blasting or other suitable mechanical method.

All cracks must be at least 1.5 cm deep and must be sealed with **MASTERPLUG®** if there is no water or with **MAXPLUG®** if there is water penetration. All non-structural surface iron must be cut to a depth of 2 cm and then patched with **MASTERPLUG®** or **MAXPLUG®**. Wash and saturate the surface with water before applying the coating but check that there are no puddles or free-standing water remaining.

2. APPLICATION

BY BRUSH, BROOM OR SPRAY:

Mix water in 25 kg as per client's requirement or as per climatic conditions, either manually or preferably by slow speed drill (400 – 600 rpm). Applications made at high temperatures or sprayed, the water ratio can be increased slightly. For standard applications, **Techcryst-super** can be applied with a fiber type brush or broom. Apply a thick layer to form a continuous and uniform coating; do not spread as if it were a paint, apply only in one direction, the second coat should be spread in the opposite direction. Consumption is between 1 and 1.5 kg/ m² per coat, for a total consumption of about 2 – 2.5 kg/ m². Waiting time between coats is from 6 – 8 hours minimum to 24 hours max. It can be also sprayed by means of shot-creting equipment. For applications made by spray which will be later subjected to water pressure, and in order to ensure a complete coverage of the surface, it is recommended to slide



the broom over the material which has just been sprayed.

BY DUSTING AND POWER TROWEL:

For this case, the application is performed on the fresh concrete, after leveling, and has enough strength to be walked over, but still fresh enough to dampen the surface when towed. The product is spread in powder form as supplied at a ratio of 1.5 to 2.5 kg/ m², endeavoring to achieve a complete and uniform coverage. Immediately after the surface is hosed down to prevent the superficial drying of the slab and to make the power troweling smoother. The troweling will provide a monolithic waterproof layer, which can be slightly dampened during this operation to improve the penetration and to prevent an excessively quick drying, which would prevent the proper hydration of **Techcryst-super**. Singular spots such as columns, penetrating pipes, corners, concrete joints, and expansion joints should be treated and sealed accordingly.

Techcryst-super can also be dusted on the lean concrete and the steel reinforcements. This procedure will not only protect the reinforcement itself but will prevent the rising dampness into the foundation slab. The lean concrete should be dampened until saturation and Techcryst-super will be dusted using between 1.5 to 2.5 kg. /m². The concrete of the foundation slab can be poured after one hour, once Techcryst-super has hardened and adhered to the lean concrete, endeavoring not to damage the previous application.

3. APPLICATION CONDITIONS

The ideal working temperature is 15° - 35°C. For summer or hot temperatures, wet the surface with plenty of water. You can water the surface even after **Techcryst-super** has been applied if it is noticed that the drying process is too fast. Do not apply when temperature is below 5°C or if such temperatures are expected within 24 hours of application. Do not apply on frozen or frosted surfaces. Do not apply on outdoor surfaces if rain is expected within 24 hours after application.

4. CONSUMPTION

Estimated consumption applied by brush, broom or spray is between 1 and 1.5 kg/ m² per coat, for a total consumption of about 2 – 2.5 kg/m² in two coats. Porous surfaces, substrate conditions and application method can vary this estimated consumption. Applied by dusting on fresh concrete, estimated consumption of **Techcryst-super** is about 1.5 – 2.5 kg/ m². Congested reinforced slabs can increase consumption up to 20 - 25 %. A preliminary test on-site will determine consumption exactly.

PACKAGING AND COLORS

Techcryst-super is supplied in 25 kg bags and drums. It is available in grey and white color.

□ TECHCRYST SUPER

CEMENT- BASED WATERPROOF COATING/ ADMIXTURE WITH
CRYSTALLIZATION AND OSMOTIC PROPERTIES



An ISO 9001-2000 Company

STORAGE

Twelve months in bags and eighteen months in drums respectively, in its original unopened packaging, in a dry covered place protected from damp and frost, with temperatures above 5 °C.

SAFETY AND HEALTH

Techcryst-super is an abrasive compound, so protective rubber gloves and safety goggles must be used to prepare the mixture and apply it. In case of skin contact, wash affected areas with water and soap. In case of eye contact, rinse thoroughly with clean water, but do not rub. If irritation persists, seek medical attention. For further information, Safety Data Sheet of **Techcryst-super** is available by request.

Disposal of the product and its empty packaging must be done by and according to official regulate.

For further information contact Choksey chemicals P Ltd. 111, Industrial Area Sion Mumbai 400022

DISCLAIMER

- The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential non performance.