

FUERZA CRISTA-SHIELD

CEMENTITIOUS CAPILLARY CRYSTALLINE WATERPROOFING COATING

FUERZA CRISTA-SHIELD is cement based non- toxic waterproofing system, which provides a permanent solution to water leakage, ingress or seepage in concrete structures or any cementitious substrates. Applied as a surface treatment, FUERZA CRISTA-SHIELD provides a deep seal penetration and protects against fresh and salt water under pressure. FUERZA CRISTA-SHIELD penetrates into the pores of the substrate by capillary action and is channeled to the lower depths of the concrete by the moisture that is present, this occurs even in the smallest pores and capillaries. The reaction between moisture and the active FUERZA CRISTA-SHIELD chemicals creates a continuous barrier of insoluble crystals. The crystal formation follows the water back as far as it is present in the structure. The capillaries are permanently blocked to the passage of water however vapor may pass allowing the structure to breathe.

Rate and penetration of crystal formation depends on the presence of free lime and the density of the concrete. Old concrete may have no free lime present and these needs to be determined prior to application. Seek advice prior to waterproofing old structures.

APPLICATORY AREAS

FUERZA CRISTA-SHIELD is applied internally & externally, it can be used for any water retaining and water excluding applications including the
Waterproofing and protection of:

WATER RETAINING

Water tanks
Canals
Foundations
Dams
Swimming pools
Reservoirs

WATER EXCLUDING

Tunnels
Inspection pits
Foundation pile caps
Basements and Cellars
Lift shafts
Construction joints

TECHNICAL INFORMATION

Supply form:	Powder
Color:	Grey
Bulk density:	2.0 kg
Application temp:	>5° C
Setting time:	2-4 hours
Bonding strength:	1.25 MPa

DIRECTIONS FOR USE

Surface Preparation:

Surfaces to be treated must be free from dust, dirt, oil, grease, paint, curing compound or any previous surface treatment that will impair adhesion or inhibit penetration of the system. Remove any laitance and provide an open pored slightly rough surface. Make good any areas of weak or unsound concrete. Dry concrete must be saturated for 24 hours prior to application. Surfaces should be damp at the time of application.

Mixing:

Mixing should be carried out using a forced action mixer or common paddle mixer. Add FUERZA CRISTA-SHIELD to the mixer and introduce clean water at the ratio of 1 part water to 2.25 - 2.50 parts FUERZA CRISTA-SHIELD by volume. Thoroughly mix to achieve a brush able consistency. Mix only sufficient material that can be used in 30-40 minutes. Do not re-temper with water.

Application:

FUERZA CRISTA-SHIELD should be applied to the surface in contact with the water wherever possible. This will result in accelerated penetration and crystal formation.

FUERZA CRISTA-SHIELD should be applied to the damp, prepared substrate by brush or spray at the rate of 1.0 kg/m² per coat. Apply the slurry in two coats, the second at right angles to the first. Second coat application should be 3-4 hours after the first dependent on temperature. It is recommended that treated tanks and other water retaining structures are filled with water 24 hours after application of the second coat. Structures should remain filled for at least 7 days to facilitate crystal growth, which is accelerated by water pressure.

PACKAGING AND STORAGE

FUERZA CRISTA-SHIELD is packaged in 20 kg bags and should be stored in a cool, dry place, just like cement. It has a shelf life of 12 months.

