MITCHSEAL CWP

Crystalline Capillary Action Waterproofing System

DESCRIPTION

The **MITCHSEAL CWP** waterproofing system ensures the total and permanent solution to water leakage, ingress, or seepage in concrete structures or any cementitious substrate. The formation and development of insoluble crystals into water bearing capillaries and interstices effectively blocks the further passage of water and ensures permanent water tightness for the life of the structure.

MITCHSEAL CWP is supplied as a powder and mixed to a slurry consistency with water. **MITCHSEAL CWP** is applied directly to concrete, block-work or cement renders in areas where general waterproofing is required. In powder form, the product may be used as a dry shake on horizontal construction joints.

WATER RETAINING	WATER EXCLUDING
Water Tanks / Towers	Basements
Reservoirs	Tunnels
Swimming Pools	Inspection Pits
Water Treatment Works	Foundations
Dams	Retaining Walls
Canals	Lift Shafts
Harbors	Construction Joints
Concrete Pipes	Sea Defense Walls
	Bridge Decks
	Jetties
	Pontoons

ADVANTAGES

Provides total and permanent waterproofing properties by becoming an integral part of the structure to which it is applied.
Active ingredients will not delaminate, peel off or wear away.
Protects concrete and reinforcement against corrosive waterborne substances.
Crystalline action is reactivated by contact with water providing dormant additional protection.
Effective against both positive and negative water pressure.
Non-toxic or tainting.

PACKAGING

MITCHSEAL CWP are supplied in 25 kg sacks.

ACTION

Moisture and free lime present in the substrate react with the active chemicals in **MITCHSEAL CWP** to create a continuous barrier of insoluble crystals. The crystal formation will penetrate deep into the capillary structure of the concrete, blocking capillaries and interstices from the passage of water, whilst permitting the transmission of air and water vapor, enabling the structure to breathe.

Rate and penetration of crystalline development varies with the density and surface absorption of the concrete, but the crystals will penetrate to the depth to which water is present. Surface penetration sufficient to provide full water proofing properties can be achieved after 5 - 7 days.

MITCHSEAL CWP is equally effective against both negative and positive water and osmotic pressures and can be applied to the internal or external surface. Wherever possible however, **MITCHSEAL CWP** should be applied to the surface with which the water is in direct contact. This will result in an accelerated rate of penetration and crystallization into the concrete structure.

After the crystallization process has successfully waterproofed the structure, the **MITCHSEAL CWP** active chemicals remain dormant in the concrete. Any later contact with water will reactivate the sealing process.

DIRECTIONS FOR USE

NEW CONSTRUCTION:

The vast majority of leaking water retaining (or excluding) structures constructed of sound dense concrete, leak only at construction or day work joints. Costly remedial work can be avoided by the use of **MITCHSEAL CWP** as a dry shake onto the horizontal surfaces of joints or as a slurry application on vertical surfaces.

In conditions of high water table **MITCHSEAL CWP** may be applied as slurry or dry shake over blinding concrete immediately prior to casting the slab. This sandwich system will prevent ingress of ground water preventing deterioration, and dampness or flooding. Foundations should be treated on the external face wherever possible, as should the face of construction joints. **MITCHSEAL CWP** can be applied immediately after the formwork has been removed, as the water curing

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process required for **MITCHSEAL CWP** will also ensure full hydration of the concrete.

If the treatment is to be exposed and an aesthetically pleasing finish is required, the **MITCHSEAL CWP** after curing, should receive a sand/cement render on which to apply the desired finish.

EXISTING STRUCTURES:

Structures subject to water leakage or ingress must be carefully inspected to determine the cause. Any water present should be cleared away so that a thorough survey can be conducted. Static cracks over 1mm must be chased out, dampened down and repaired with **MITCHSEAL CWP** mixed with fresh cement sand mortar on an **MITCHSEAL CWP** coat. Dynamic cracks must be formed into a watertight elastomeric movement joint.

SURFACE PREPARATION:

In common with all surface treatments to concrete, the quality of substrate preparation directly affects the performance of the system. Surfaces to be treated must be free from dust, oil, grease, paint residual curing compound, mold oil or any previous surface treatment that will impair adhesion of the **MITCHSEAL CWP** treatment, or inhibit penetration of the chemicals or water into the surface. These include polymer modified renders and those substrates treated with silicon or silane water repellents. Remove any laitance and provide an open pored, slightly rough surface sufficient to act as a mechanical key, essential for adequate adhesion of the **MITCHSEAL CWP** treatment.

Areas of weak or honeycombed concrete must be repaired. Hollow, de-bonding renders must be removed and made good. Surfaces to be treated if not already wet, should be saturated for a period of 24 hours before first applications. **MITCHSEAL CWP** system technology requires the presence of water for the active chemicals to migrate into the concrete. Crystalline development will usually extend to the depth of water penetration.

MIXING:

Always add water to **MITCHSEAL CWP** - not in reverse order.
Mix 1 part of water to 2.25 - 2.5 parts **MITCHSEAL CWP** powder by volume.
Mix only sufficient **MITCHSEAL CWP** that can be used in 20 minutes.

APPLICATION:

MITCHSEAL CWP mixes are applied by brush or spray onto the dampened substrate. Apply the material in 2 coats at right angles, the second coat whilst the first is firm, but 'green' - usually 3-4 hours after first coat (dependent on temperature).

For old concrete, brickwork and granular concrete blocks, **MITCHSEAL CWP** coat with a render 5-10mm thick.

CURING:

The **MITCHSEAL CWP** must be prevented from drying out too rapidly and should be kept damp for 5-7 days. Mist spraying with water and covering with polythene is effective when drying out would otherwise take place. Curing compounds are unsuitable for use with **MITCHSEAL CWP** system technology. Protect from weathering, sun, frost and wind for a similar minimum period.
Tanks and other water retaining structures may be filled 24 hours after final **MITCHSEAL CWP** application as crystal growth is accelerated by water pressure.

COVERAGE

Two coat slurry application:
MITCHSEAL CWP: 1kg per m² per coat.
Dry shake application:
MITCHSEAL CWP: 1kg per m².

COLOUR

Powder - grey

STORAGE

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction.
Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Reseal containers after use.
Should be handled to minimize dust formation during mixing. Use a light mask if excessive dust is unavoidable.

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