

FUERZA CURACEM

WAX BASED CONCRETE CURING COMPOUND

FUERZA CURACEM is a **high-performance, wax-emulsion curing compound** formulated to establish a uniform, impermeable surface membrane immediately after application. This continuous film suppresses the evaporation of capillary moisture from freshly cast concrete, thereby ensuring efficient cement hydration, minimizing plastic shrinkage, and enhancing the mechanical and durability characteristics of the hardened concrete.

APPLICATORY AREAS

- Vertical reinforced concrete structural elements, including columns and piers.
- Canal linings, hydraulic structures, dams, and irrigation infrastructure.
- Airport runways, taxiways, and aviation pavement systems.
- Aircraft aprons, industrial hardstands, and heavy-duty concrete pavements.
- Roof slabs, deck systems, and thin-shell concrete roof structures.
- Retaining walls, marine structures, ports, and harbor facilities.
- Pre-stressed and post-tensioned concrete members, including beams, columns, and girders.
- Exposed concrete surfaces of dams and other large hydraulic engineering structures.
- Concrete repair, rehabilitation, and maintenance applications.

FEATURES & BENEFITS

- Eliminates the need for conventional curing methods such as continuous water ponding, wet hessian coverings, or polyethylene sheeting.
- Promotes efficient cement hydration by preventing premature moisture loss, thereby eliminating the risk of inadequate or non-uniform curing.
- Possesses excellent solar reflectance properties that reduce surface heat absorption and maintain lower concrete temperatures during the critical early stages of hydration.
- Offers rapid and straightforward application, significantly reducing labor requirements and overall construction time.
- Formulated free from deleterious contaminants, including chlorides and other corrosive constituents, ensuring compatibility with reinforced concrete.
- Does not interfere with the normal setting characteristics or hydration kinetics of cementitious materials.

TECHNICAL INFORMATION

Supply form:	Bulk liquid
Color:	Milky white
Dry film color:	White
Viscosity:	5-10 cps
Reflectance:	More than 60% to that of MgO
Min Application temp:	4°C
Water loss after 22H:	Not more than 0.55 kg/rn2

FUNCTION

The hydration of cementitious materials requires the continuous availability of moisture to ensure complete hydration and the development of the designed mechanical properties. Proper curing is therefore essential to minimize premature evaporation of capillary water from fresh concrete, thereby preventing reductions in strength, durability, and overall performance. Conventional curing techniques, including water ponding and wet coverings, often produce inconsistent results due to their dependence on site conditions and environmental variables.

FUERZA CURACEM forms a continuous membrane over the concrete surface that effectively suppresses moisture evaporation, retaining the water necessary for uninterrupted cement hydration. This controlled moisture retention promotes complete hydration, enhances strength development, and improves the long-term durability of the hardened concrete.

METHOD

Application Procedure:

FUERZA CURACEM shall be applied uniformly using suitable spray equipment, maintaining the spray nozzle at an approximate stand-off distance of **450 mm** from the concrete substrate. The nozzle should be moved in a controlled, overlapping sweeping motion to ensure continuous, homogeneous film formation across the entire surface. Spray pressure shall be regulated to generate a fine, atomized mist capable of producing a seamless curing membrane without voids or discontinuities. The recommended coverage rate is typically **3.5–4.5 m²/L**, depending on substrate texture, porosity, and specified curing requirements.

Recommended Application Equipment:

For optimum performance, FUERZA CURACEM should be applied using a **5–10 L capacity knapsack sprayer** equipped with an adjustable spray nozzle capable of producing a fine, uniform spray pattern. Equivalent low-pressure spray systems commonly utilized in horticultural or industrial surface treatment applications may also be employed, provided they ensure consistent material distribution and membrane continuity.

Equipment Cleaning and Maintenance:

All application equipment shall be cleaned immediately after use with clean, potable water to prevent the curing compound from drying within the system. In the event of nozzle obstruction caused by wax residue or particulate accumulation, the affected components should be flushed and cleaned using **white spirit** or an equivalent hydrocarbon-based cleaning solvent to restore optimal spray performance.

SPECIFICATION COMPLIANCE

The performance characteristics of FUERZA CURACEM have been evaluated in accordance with ASTM C309-99 and ASTM C156-99a, ensuring compliance with internationally recognized standards for membrane-forming curing compounds.

COVERAGE

3.5 to 4.5 m²/liter

STORAGE

Store in its original, tightly sealed packaging in a cool, dry, and well-ventilated environment, protected from direct sunlight, excessive heat, and moisture to maintain optimum product stability and performance.

SHELF LIFE

An anticipated storage life of **12 months** can be achieved when the product is retained in its original, unopened, factory-sealed packaging and protected from adverse environmental conditions.

PACKAGING

FUERZA CURACEM is supplied in factory-sealed 210 L industrial drums, engineered to maintain product integrity and facilitate safe storage, transportation, and on-site application.

