



# Emcoril / Emcoril White

Liquid membrane forming compound for curing concrete

## Product properties

- Membrane forming curing Compounds.
  - Minimizing Shrinkage Cracks
  - Reduces the surfaces dusting
  - Better solar reflectance and lowers the temperature of concrete
- Easy to apply

## Areas of application

- Can be used everywhere efficient curing is required.
- Suitable for large area of concrete which are directly exposed to sunlight; heavy winds other environmental influences
- Suitable for curing of Concrete roads, bridges canal lining, airport run-ways, water ways, harbor, port piers, dams , Pre-cast piles, pipes, roof decks, slabs, retaining walls, girders, beams overhead repair spot, chimneys, cooling towers, other tall structures.

## Application

The strength and durability of concrete does not only depend upon the correct composition and lacing of concrete but also largely depends upon the correct curing. The principle of curing is to prevent the evaporation of the capillary water in the concrete so that sufficient water is available for complete hydration which can only lead to better end hydration products and thereby avoid the surface dusting and plastic shrinkage. The conventional methods of curing like water spraying, covering with wet burlaps, polyethylene sheets etc., are not only time consuming but also starts after the initial evaporation of water and after the appearance of the first cracks. The ideal curing technique should begin as soon as possible after the casting of concrete.

**Emcoril** and **Emcoril White** are membrane forming curing compounds, to be brushed or sprayed on the fresh concrete only once, at very initial stages which is the critical hardening period of concretes or mortars. **Emcoril** curing compounds form a seamless film on the surface of the evaporation of water from the capillaries and prevents quick drying of the concrete avoiding the cracks and enabling the concrete to hydrate efficiently. **Emcoril** is physiologically harmless and does not contain any constituents that would affect the concrete. **Emcoril** disintegrates after about one month by virtue of its in-built film breaking system. The amount of water evaporation is depicted in the accompanying graph (chart as per Lerch). **Emcoril White**, a white pigmented curing compound aids in reflection of UV rays as well as the quality controller at site to ascertain that the full area is covered on account of its white color. It is very suitable for areas directly exposed to extreme sunlight and wind & conforms with ASTM C 309 specifications

## Advantages:

The curing of concrete with **Emcoril** has following advantage over the conventional type in addition to better and durable concrete.

- Minimizing the shrinkage cracks on account of curing at early stages and optimal hydration leading to stronger end-hydration products
- Helps achieve proper compressive and flexural strengths
- Enables better quality control at sites and is ideal for overhead curing and normally inaccessible places.
- Reduces the surface dusting.

- Increases the surface hardness of the concrete
- Does not affect the normal setting process of cement  
Ideal for curing at places having water shortages.
- Curing can be carried out hand in hand with concreting therefore no extra labor required
- Better solar reflectance lowering the temperature of concrete.

## Instruction for use:

**Emcoril** curing compounds are water based emulsions and therefore it is necessary to shake the containers before use. **Emcoril** should be applied as soon as possible after casting of concrete and immediately after the disappearance of water seen from the surface. Allow time gap for evaporation of the bleed water. The time period is preferably within about half an hour depending upon the temperatures. **Emcoril** should not be applied when standing water is present, it is recommended to fog down the surface before application of **Emcoril**.

For curing of concrete which is retained on the formworks, the concrete should be wetted thoroughly after opening the shuttering and the **Emcoril** should be sprayed or brushed. The application can be carried out using normal knapsack sprayers (insecticide free sprayers) having suitable nozzle. In case of larger areas motorized continuous spraying devices can be used. **Emcoril** can also be applied by normal brushes or rollers. The nozzle of the spraying device should be held about 0.7 to 1.0 m distance from the surface and it should be ensured that the complete area is covered. The pump pressure must be maintained throughout the operation to obtain a fine spray.



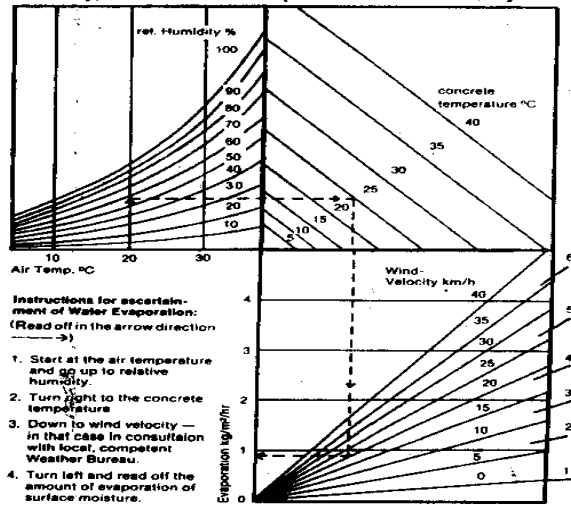
**Technical Data**

**Abstracts from test Report B-76-322 (Showing typical values)**

Loss of weight (gms/cm<sup>2</sup>) due to water evaporation from the mortar specimens stored at 38°C and 32% R.H.

Specimen	Untreated Specimens				Treated Specimens			Curing Efficiency	
	1	2	3	Avg.	1	2	3	Avg.	%
24 Hrs	0.252	0.246	0.251	0.250	0.009	0.009	0.016	0.011	96
72 Hrs	0.298	0.290	0.332	0.303	0.046	0.041	0.061	0.049	84
7 Days	0.334	0.332	0.363	0.343	0.085	0.079	0.103	0.089	74
14 Days	0.382	0.380	0.410	0.391	0.132	0.125	0.150	0.136	65
Average : 80%									

**Diagram showing the Drying Behaviour of Concrete depending (According to LERCH) upon Air Temperature, Relative Humidity, Fresh Concrete Temperature and wind Velocity.**



**Product Characteristics for Emcoril / Emcoril White**

Colour	White , translucent liquid
Shelf Life	12 months
Delivery	230 Kg drum, 30 Kg Pail
Storage	Protect from rain, heat and frost
Disposal	Packs must be emptied completely.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.  
Edition 04 / 2007 Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.