

# **Expancure\* WB**



## Water based concrete curing compound

#### Uses

As a spray applied membrane to retain moisture in concrete for effective curing, suitable for all general concreting applications, particular benefit for large area concrete surfaces, such as airport runways, roads and bridge works.

# **Advantages**

- Improved curing of concrete enhances hydration process and provides a more durable concrete.
- Control of moisture loss improves surface quality, reducing permeability, minimizing surface cracking and shrinkage.
- Fugitive color provides visual guide during application.
- Also available in white pigmented grade.
- Water based, therefore, non-flammable.
- Spray application reduces labor costs, therefore eliminates the need for alternative curing systems.

#### Standards compliance

Expancure\* WB gives 75% or greater curing efficiency when tested to BS 7542 and complies with BS 8110 Part 1, clause 6.6.3(c), ASTM C309 and AASHTO M148 as Type 1D.

# Description

Expancure\* WB water based concrete curing compound is based on a low viscosity wax emulsion. It is supplied as a white emulsion which forms a clear film on drying. When first applied to a fresh cementitious surface the emulsion breaks to form a continuous, non-penetrating white coating. This dries to form a continuous clear film which provides a barrier to moisture loss, ensuring more efficient cement hydration, improved durability and reduced shrinkage.

Expancure\* WB is also available in a white pigmented version; It contains a white pigment based on titanium dioxide to meet specifications requiring such pigmentation for reduction of solar temperature gain.

#### Instructions for use

## **Application**

Expancure\* WB white should be stirred before use to ensure even dispersal of the pigment.

Expancure\* WB should be spray applied to the surface of fresh concrete. Application should begin as soon as the concrete is free from surface water. Do not apply if bleed water is forming, or is present on the concrete surface.

The spray nozzle should be held approximately 450 mm from the concrete surface and passed back and forth to ensure complete coverage. The fugitive white color during application provides a guide to the area covered. Pump pressure should be maintained to give an even, fine spray.

After spraying, no further application of water or other material is necessary to ensure continued curing. The concrete surface should not be disturbed until it has sufficient strength to bear surface loads. The applied film should not be trafficked until it is fully dry, care should also be taken to ensure that the film is not subsequently broken.

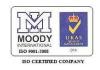
Expancure\* WB may be applied to the surface of newly hardened concrete immediately after de-moulding, in such cases the concrete surface must be damp and not dry. Dry surfaces may prevent correct film formation and cause absorption of the Expancure\* WB which may lead to staining and difficulty in later removal.

## **Equipment**

Spray equipment such as motorized sprayers which produce a fine mist without damaging the emulsion may be used for Expancure\* WB. The suitability of equipment should be assessed by an application trial.

## **Equipment cleaning**

Spray equipment should be cleaned immediately after use by flushing through with water. If spray nozzles become blocked with wax particles these may be easily cleared with white spirit.





# Over-coating and removal

Expancure\* WB must be removed from concrete surfaces prior to the application of a coating, this is necessary to ensure adequate bond of the coating material to the concrete substrate. Expancure\* WB will slowly be removed by physical abrasion in normal trafficking conditions or exposure to UV light. To ensure complete removal use high pressure steam, water jet or light sand blasting.

#### Limitations

Expancure\* WB should not be continuously re-circulated in high shear pumps in concrete train or similar applications, as this may cause a breakdown of the emulsion before spraying. If continuous recirculation is necessary, the sprayer should be fitted with a low shear diaphragm pump.

Minimum application temperature 5°C.

## **Technical support**

Fospak provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete

## **Estimating**

# Supply

Expancure WB: 30 & 210 Ltr. Drum

#### Coverage

Expancure WB: 4.00 – 5.00 m<sup>2</sup> / Ltr.

# **Storage**

Expancure\* WB has a minimum shelf life of 12 months, provided the temperature is kept within the range of 4°C to 35°C.

Freezing and prolonged exposure to heat or direct sunlight should be avoided. Should the temperature of the product fall outside this range then the Fospak Technical Service Department should be contacted for advice. Containers should be kept sealed and airtight to prevent loss of moisture by evaporation.

#### **Precautions**

## Health and safety

Expancure\* WB does not fall into the hazard classifications of current regulations (see notes 1 and 2 below). However, it should not be swallowed or allowed to come into contact with skin and eyes either in bulk or spray form. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - **do not** induce vomiting.

For further information consult the Material Safety Data Sheet available for this product.

### Fire

Expancure\* WB is water based and non-flammable.

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