TDS: BRO-CURE

REV: 2.1

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# TECHNICAL DATA SHEET - BRO-CURE

Bro-Cure is a sodium silicate-based curing to cure, harden and dustproof new and old concrete.

A chemical reaction happens when water is mixed with cement, also called the hydration process, which as a byproduct forms calcium hydroxide and calcium silicate hydrate (CSH).

The chemical reaction is known as the strength development process of the concrete. The strength development is dependent on three primary factors: time, temperature, and moisture.

To reach an adequate moisture in the concrete, water evaporation must be prevented.

The sodium silicate in Bro-Cure reacts with calcium hydroxide within the concrete to form calcium silicate hydrate (CSH) gels.

The CSH gels are formed within the bleed water surface capillaries which has the effect of plugging the capillaries preventing the loss of critical mix water during the hydration.

Bro-Cure hereby improves the hardening, sealing, and densifying of the concrete surface and minimises the risk of cracks.

Compared with foreign coatings and membranes, Bro-Cure is inorganic and reactive with the concrete, thus it becomes an integrated part of the concrete. The application of Bro-Cure does not result in the formation of anything, that is not already in the concrete, which is why the surface properties (slip resistance) stays the same. This also eliminates the need for mechanical and chemical removal.

Bro-Cure contains a red fugitive dye for easy and uniform application.

Apply more than one layer when using Bro-Cure for dustproofing on old concrete.

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# **ADVANTAGES**

- ✓ Minimises the risk of cracks
- ✓ Will not contaminate with potable water
- ✓ Not combustible
- ✓ Does not contain wax, oil or paraffins
- Minimises need for mechanical and chemical removal

#### **ACCESSORIES**

- · Ferrox Plus hand pump
- Wagner SuperFinish 23 Plus HEA

#### **APPLICATION**

- Stir before use
- Apply with either hand pump or power spray equipment. It is recommended to apply Bro-Cure with a customised nozzle (please contact HauCon for more information)
- Pumps must be clean and free for any solvents or oil based materials
- · Wash equipment with clean water immediately after use

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#### **NEW CONCRETE**

- · Apply Bro-Cure immediately after the last troweling
- For best result apply a rate of 1 liter per 12-14m<sup>2</sup> in one uniform layer

It is recommended to apply Bro-Cure in two stages in weather conditions with high temperatures and strong wind to prevent excessive water evaporation. Apply the first layer before troweling and the second layer after the last troweling.

#### OLD CONCRETE (DUST PROOFING)

- Clean the old concrete thoroughly before applying Bro-Cure to ensure the Bro-Cure can penetrate the surface capillaries
- It can be necessary to apply more than 2 layers depending on the porosity of the concrete
- Recommended consumption: 1 l per 5,5 to 8,0m<sup>2</sup>

# **TECHNICAL SPECIFICATIONS**

Viscosity:	Water thin
Freeze point:	0°C
Flash point:	Not combustible
VOC:	0g/L

# PACKAGING AND STORAGE

Plastic can: 20 lPlastic barrel: 200 l

Store in original packaging in a dry location with temperatures between 4°C and 38°C (Protect from freezing)

Expiration date is two years after production.

# **PRECAUTIONS**

- When applied before the final troweling, Bro-Cure may accelerate initial set
- If Bro-Cure comes into contact with glass, marble-like surfaces or unfinished metal such as aluminum, flush immediately with water. Bro-Cure is not removable after one hour and may permanently etch these surfaces
- Bro-Cure must not be purred directly into the concrete
- Not recommended for application when air temperature is less than 4°C
- · Avoid skin and eye contact with Bro-Cure

# SAFETY DATASHEET

Please find seperate safety datasheet on www.haucon.dk.