



### CENTROX™ R (Cementitious Coating)

#### Waterproofing, Corrosion Protection & Restoration

#### PRODUCT INFORMATION BULLETIN

January 2010

**Centrox™ R** is a chloride free, penetrative waterproof cementitious coating approved for use with drinking water (A.W.Q.C. Reference 140529-2006-CSR-2) and specially designed for the restoration of old and the protection of new concrete.

#### USES

- Repair, restoration and protection of concrete structures such as water storage facilities, sewerage treatment plants, bridge pylons, beams and decks, bunded areas etc.
- Waterproofing of roof decks, balconies, basements, concrete tanks, tunnels etc.
- Increased protection of concrete against the corrosive environments found in sewerage treatment, chemical and fertilizer plants and food processing factories.

#### BENEFITS

When correctly applied as a coating **Centrox™ R**:

- Forms an indivisible body with the base concrete.
- Restores the alkalinity of the base concrete.
- Significantly increases impermeability and corrosion resistance of concrete.
- Enhances the properties of the concrete against reinforcement corrosion.
- Significantly reduces chloride penetration.

#### PROPERTIES OF APPLIED COATING

<b>Final hardening:</b>	4 – 8 hours
<b>Impermeability:</b>	Waterproof According to DIN 1048.
<b>Chloride ion diffusion:</b>	NT Build 443-1955-11 Reduced approx. 2 times
<b>Impact abrasion</b>	AS/NZS 4469.9.2003
<b>Resistance:</b>	Significantly increased.
<b>Carbonation</b>	Colour metric method
<b>Resistant:</b>	Significantly increased
<b>Flexural strength:</b>	AS1012.9 – 1999 28 days: 6.8 mpa
<b>Compressive strength:</b>	AS1012.9 – 1999 1 day: 21.7 mpa 28 days: 43.5 mpa
<b>Water absorption:</b>	Decreased by approx 3 times.
<b>Bond strength:</b>	4.1 mpa; unprimed. 5.0 mpa, primed.
<b>Crack resistance:</b>	Resistant ('Ring Method').

#### Corrosion rate in acid

- medium (pH 3-4):** 1.6-1.9 times lower than the corrosion rate of plain concrete.
- Steel reinforcement corrosion:** Polarisation curves method. Steel corrosion is inhibited.

#### INSTALLATION (Refer to MSDS before use)

**Surface Preparation:** remove any existing coating and thoroughly clean surface, acid etch, pressure wash, hose to fully impregnate with water and allow to dry to a wet dull lustre free of puddles.

**Priming (recommended):** Apply **Centrox™ L** at the rate of 6 – 10 square metres per litre to further wet the surface without forming puddles.

Note: Priming enhances steel corrosion inhibition.

**Mixing Equipment:** Low shear mechanical mixer.

**Mixing Method:** place the required amount of water in a clean mixing bucket and while stirring slowly, gradually add the **Centrox™ R** until a mix of the desired workability is obtained. Mix for a further 2 minutes, allow to stand for 5 minutes then re-mix for a further 1-2 minutes to obtain a stable fluid. Use within 30 minutes

Note: As a guide the normal water requirement is 1 litre to 5.5-6.0 kg of **Centrox™ R**.

#### Drinking Water Approval :

A.W.A.C. Reference 140529-2000-CSR-2

#### Application:

Apply by bagging, trowel or spray to a wet puddle free surface at a thickness of between 1.5 and 5 mm.

Note: If a shorter cure time is required for hydraulic concrete **Centrox™ R** can be applied to a dry surface by vigorous bagging and smoothing by trowel is necessary.

#### Curing:

Wet the surface with water mist as soon as the surface is firm (approximately 4-8 hours after installation).

Also in the process of curing, the hardening surface of **Centrox™ R** can be treated with the liquid waterproofing **Centrox™ LW** – for dramatically increased crack resistance (see instruction on Centrox LW TDS).

#### PACKAGING, SHELF LIFE and STORAGE

**Centrox™ R** is available in 20 kg moisture resistant bags.

**Centrox™ R** has a shelf life of 12 months if kept in a dry store in sealed bags.