



KISTAL 9A

Integral Waterproofing Admixture by Crystallisation with Pore Blocking Mechanism

DESCRIPTION

KISTAL 9A is a chloride free, unique chemical admixture supplied in the form of grey powder. It is added to concrete and mortars during batching, hence reducing time and labour than other waterproofing methods. Its unique crystallization properties impart both self-healing and waterproofing properties for any concrete throughout its lifetime. KISTAL 9A distinguishes itself from usual powdered form waterproofing admixtures with a low water absorption rate – tested against BS 1881: Part 122 with absorption below 1%

RECOMMENDED USE

- Basement
- Dams
- Driveway Slab
- Environmental Deck
- Ground slab and suspended slab
- Lift Pit
- Marine and other water retaining structures
- Ponds
- Potable Water Tank
- Precast structures
- Raft foundation and retaining walls
- Reservoirs
- Roof and Roof Terrace
- Shotcrete
- Swimming Pool and Water Feature
- Tunnels and pipelines

ADVANTAGES

- Able to withstand high hydrostatic pressure >7 bars.
- Can seal hairline cracks/ static cracks up to 0.4mm.
- Compatible with green materials such as slag powder, fly ash, silica fumes etc.
- Cost saving against waterproofing membranes or coatings.
- Economical and simple to apply compared to other systems.
- Facilitates faster backfilling – save money and time.
- Forms as an integral part of concrete.
- Low water absorption conforming to specification set accordance to BS 1881.
- No effect on setting time or water demand.
- Non-toxic. Complies with SS375: 2001 – Potable water.
- Protection of concrete against aggressive chemicals including chloride attack to reinforcement steel from corrosion.

PACKAGING

KISTAL 9A is supplied in 20 kg bags

REV. TDS-K9A-V3
Dated: 7-NOV-2024

KENSETSU INTERNATIONAL (S) PTE LTD



MIX DESIGN GUIDELINES

KISTAL 9A is added into the concrete mix at the rate of 0.8% - 1.2% by weight of cement content. Dosage of KISTAL 9A to meet with requirements must be assessed throughout the trial mixes.

Batching and Mixing

The correct quantity of KISTAL 9A should be measured based on approved mix design. Add KISTAL 9A in powder form to the drums of the ready-mix concrete truck. Mix the materials for minimum 5 minutes to ensure the KISTAL 9A has been evenly distributed throughout the mix.

Joints

KISCOTE R waterstop must be provided in-between construction and movement joints prior to the next pouring of concrete.

King Post / Pipe Penetration

- KISCOTE R5 – 20 x 5mm dimension waterstop must be provided around pipe penetration prior to the pouring of concrete.
- Areas that require KISCOTE R to bend awkwardly along desired profile use 20 x 5mm dimension and fill all gaps with KISCOTE MS – water-swellable mastic sealant.

Curing

All structural concrete added with KISTAL 9A, good curing practice must be maintained. Use of curing compound, spraying with water or any other means of preventing drying which caused shrinkage and cracking should be practiced.

STORAGE

KISTAL 9A should be stored in a cool and dry area, tightly sealed in its original packing, and a 12-month shelf life can be expected from date of manufacturing.

HEALTH & SAFETY

Gloves and goggles should be worn. Any contact to the eyes and skin should be washed off with clean water. In the event of prolong irritation, seek medical advice. Powder products should be handled to minimize dust formation. Use a mask if excessive dusting is unavoidable. Refer to KISTAL 9A SDS for further information.



TECHNICAL PROPERTIES

KISTAL 9A	
Appearance	Powder
Colour	Grey
Chloride content (BS EN 480-10)	< 2% by mass of admixture
Shrinkage (AS 1012-13) 28 days	<600 Micro strains
Suitable ph range	0.3 (acid) – 11.0 (alkaline)
Toxicity (SS 375)	In compliance to
Water absorption (BS 1881, Part 122)	< 1%
Water penetration (DIN 1048, Part 5)	<20mm
Water permeability (DIN 1048 Part 5)	<5.0 x 10 ⁻¹³

IMPORTANT NOTES

Any information and/ or specification contained herein is to the best of the company knowledge, true and accurate, it is always recommended that trial to be carried out to confirm suitability of use for all products, as no warranty is given or implied in connection with any recommendations and/or suggestions made by the company representatives, agents and/or distributors.

All information contained in this document is effective from date shown and supersedes all previous version. Please check with your local KENSETSU office to confirm that this is up to date version.

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