



KISGEL ACRYLITE

Acrylate Gel For Grout Injection

DESCRIPTION

KISGEL ACRYLITE is an acrylate-based 4-component hydrogel which will harden, upon dosing and mixing, to form to a flexible yet permanent seal. It is applied through injection into cracks, joints and voids. KISGEL ACRYLITE supreme flowability makes it the ideal solution for injection grouting hose system systems – such as KISTUBE RI for retrofit sealing of designed sealing spots and details.

KISGEL ACRYLITE is versatile to withstand all prevailing conditions on site (e.g. tunnel temperature, humidity and injection distance/design); Its adjustable reaction (hardening) time can be controlled according to the percentage of accelerator used. It seals and waterproof leaks/cracks through its hydrophilic swelling behaviour and the technology has been tested positively in deep tunnels and above ground structures alike.

AREAS OF USE

- Use with KISTUBE RI for water-tightness solution in new structures
- Concrete structures
- Masonry mortar
- Diaphragm walls
- Leaking ceilings/floors
- Precast sections
- Subway stations
- Tunnel liners
- Tunnel segments

ADVANTAGES

- Elastic and flexible gel
- Excellent adhesion
- Highly penetrative with extremely low viscosity
- Quick reaction time, ideal for use with KISTUBE RI system to form a preventative sealing details (Flushing the tubes with water is needed if future re-injection is required)

PACKAGING

Part A1 (Resin) – 20kg in plastic pail

Part A2 (Catalyst) – 1kg in plastic bottle

Part B (Accelerator) – 40g powder in plastic bottle

Part C (Retarder) – 1kg in plastic bottle

APPLICATION GUIDELINES

a) Preparation (Re-injectable grout tube)

- Inspect the grout tubes and ensure there is no choke
- Mix KISGEL ACRYLITE according to its intended use as follows.



b) Mixing

- Mix Part A1 and Part A2 together. Then add Part C and stir well (Mixture 1). Note: Percentage of Part C can be adjusted to suit prevailing conditions.
- Add Part B to 20 kg of clean water in a pail. Make sure all the powder in the pail are dissolved completely (Mixture 2)

Do NOT prepare Mixture 1 or Mixture 2 for more than 12 hours before usage.

- Pour Mixture 1 and Mixture 2 into the respective component of the pump at ratio of 1:1 by volume.
- Gel time of KISGEL ACRYLITE under standard temperature is about 10–20 minutes.

Due to the fast gelation time, a twin-piston pump (optional: an additional third piston for flushing with clean water) will be suitable for this operation.

c) Application

- Inject KISGEL ACRYLITE with a pump capable of reaching 1000 psi pressure.

d) Cleaning

- All tools and equipment should be cleaned and/or flushed with water immediately after use.

LIMITATION

KISGEL ACRYLITE is not to be used for restoring structural integrity. Use KISEPO 20.

STORAGE

KISGEL ACRYLITE must be sealed in original containers in a dry area. Storage temperature must be between 5°C and 30°C. A 12-month shelf life can be expected from date of manufacturing if recommended storage condition is respected.

HEALTH & SAFETY

Refer to KISGEL ACRYLITE SDS for further information.



TECHNICAL PROPERTIES

	KISGEL ACRYLITE				
All at 25°C	Part A1	Part A2	Part B	Part C	Mixture
Appearance	Blue	Colourless	White	Yellow	Blue
Density	1.19g/cm ³	1.10g/cm ³	1.15g/cm ³	1.00g/cm ³	1.09g/cm ³
Mix ratio	1 Part (by volume)	1 Part (by Volume)	As is (by Volume)	As is (by Volume)	
Dynamic Viscosity	40 mPas	280 mPas	-	-	
Form	Liquid	Liquid	Solid	Liquid	Gel
Elongation at break					>500%
Modulus of elasticity					0.26 MPa
Pot life (100gm sample)*					10-20 mins

* Gel time depends on temperature on site. Gel time test for every batch should be verified prior to application.

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.

REV. TDS-KA-V2
Dated: 13-Dec-2020
KENSETSU INTERNATIONAL (S) PTE LTD