ISO 9001:2000

CICO POLYGROUT

Expansive Aqua-Reactive Water Barrier and Grouting System

DESCRIPTION :

CICO POLYGROUT is a low viscosity liquid which react with water in a controlled manner to form a swelling resilient adhesive solid in densities and strength appropriate to the designated task. When impregnated under pressure into leaking structures, through the process of polymerisation, a permanent flexible/rigid water barrier is formed.

The liquid retains its initial low viscosity upon contacting water allowing it to flow without dilution. Once the **CICO POLYGROUT** water reaction commences, the grout expands penetrating into its surrounding and quickly cures to a tough, adhesive solid to repel the influence of underground seepage flow and solidify the objective ground which is unaffected by corrosive environments.

FEATURES :

* **CICO POLYGROUT** has very remarkable solidifying property even in ground where water flow is violent. It stops water from oozing and solidifies the ground with high strength.
* **CICO POLYGROUT** imparts successful solidifying property in all types of water, such as seawater, mineral water or that containing slight acid and alkali.
* **CICO POLYGROUT** is extremely stable both chemically and physically and will not be damaged by any bacterium.
* **CICO POLYGROUT** is completely non-pollutant to the water it contacts and has no effect on potable water, fish or marine life.
* **CICO POLYGROUT** possesses excellent adhesiveness to solid particles and is therefore useful in landslide prevention.
* **CICO POLYGROUT** does not wash away or is not diluted by the ground water.

BUILDING CONSTRUCTION USAGE :

* Prevention of water from leaking into underground (basements, tanks, sumps, pits etc);
* Soil stabilisation for foundations.
* Securing tie – back anchors for retaining walls or guys.
* Serving as sealer or liner in concrete structures.
* Preventing water from oozing from ground.
* Serving as water barrier in basement gravel bedding waterproofing system.

CIVIL ENGINEERING WORK APPLICATION :

* Solidifying and strengthening of ground and rock and stopping water from oozing out.
* Preventing leakage in tunnels and tunnel segment, deep underground structures and water retaining structures.
* Stabilisation of abutment and bridge piers.
* Preventing leakage through dams.
* Preventing of landslides
* Solidifying and creating a water barrier in rock and earth fill dams.
* Back filling by impregnation for tunnel shield construction.
* Preventing air from leaking during compressed air shield construction or caisson construction.
* Facilitates supportability of pile and pier.
* Increases bearing capacity of underpinning
* Prevention of crown collapse in tunnels.

ENVIRONMENTAL ENGINEERING & OTHER APPLICATIONS :

Solidifying agent to atomic, industrial and chemical waste solutions or wastewater.
Solidifying agent for sewage and sludges removed from organic and inorganic waste dumps.
Preservation of historical relics, harbour engineering, ,mining reclamation engineering etc.

IMPREGNATION METHOD :

CICO POLYGROUT is generally pumped as a single component through low pressure hand-operated pumps or special high pressure pumps as required.
Hoses are fitted with packers/injection nipples with valve which is sealed against back-pressure with quick-setting cement. The surface is sealed/patched properly to prevent from coming out.
CICO POLYGROUT reacts with water and expands to form a 'fluid wedge' & blocks the leakage. Even gushing leakages can be sealed without it being necessary to block the hydraulic pressure. Due to the low viscosity and expansion during reaction even the smallest cracks, fissures and pores can be impregnated.
Since the chemical reaction is very quick the results are immediately visible.
When water is not naturally present in sufficient quantity to assure the desired reaction, a sufficient quantity of water is also required to be injected.

PROPERTIES :

PROPERTIES	
Appearance	Light-yellowish transparent liquid
Viscosity(cps at 25°C	200
Specific Gravity(at 20°)	1.06 ± 0.02
Corrosiveness	Non-corrosive
Toxicity	Non-toxic
Flammability	Non-inflammable
Gelation	Highly strong elastic gel

STORAGE : Store in dry area.

SHELF LIFE : If stored properly in unopened containers a shelf life of approximately 12 months could be expected.

PACKAGING : Available in 5 Kg & 20 Kg drum

TECHNICAL SERVICE : We offer our Technical services to assist you in the correct use of our product and its resources.

PRODUCT INFORMATION

Although the basic formulation of our products generally remain unchanged, production refinements arising from continuing research and evaluation program may occasionally results in marginal changes in properties.

TECHNICAL SERVICE

* **CICO** maintains a technical division with highly qualified Technical Personnel to investigate and advise on subjects related to concrete and the construction industry. The Division will advice on the correct use and selection of right products at the right place.
* **CICO** undertakes Consultancy Service for diagnosis and rehabilitation of distressed structures
* **CICO** undertakes jobs as a package for total waterproofing system with guarantee

CICO TECHNOLOGIES LIMITED

Regd. & Corp. Office: "CICO House", B-360 Chittaranjan Park, New Delhi-110 019
Tel.No: 91-11-26272396, 26273411 & 26276536
Fax No: 91-11-26274865
E-Mail: cicotech@cicogroup.com **Web Site: www.cicogroup.com**