

CICO POXY-SBA

Thixotropic Epoxy Resin Adhesive For Segmental Bridge Construction

CICO POXY-SBA is a solvent free thixotropic two-pack adhesive system based on specially selected epoxy resin and hardener yielding high strength material. It is available in three grades: Rapid Set, Normal Set and Slow Set depending on ambient temperature condition. Each grade is suitable for application for different temperature range. **CICO POXY-SBA** in pasty or thixotropic consistency finds an easy application as structural adhesive. **CICO POXY-SBA** complies with the performance criteria recommended by the **FIP** as epoxy bonding agent for segmental construction and also complies with the **AASHTO** Specification C881 on epoxy bonding agent.

CICO POXY –SBA (Rapid Set RS) : Suitable in the temperature range of 5°C to 20°C

CICO POXY –SBA (Normal Set NS): Suitable in the temperature range of 15°C to 35°C

CICO POXY SBA (Slow Set SS): Suitable in the temperature range of 25°C to 45°C.

USES

CICO POXY –SBA is most suitable as bonding medium in the assembly of concrete segmental units and segmental bridge construction. It also finds application in crack and surface sealing, concrete repairs-rehabilitation and carbon fiber wrapping for surface reinforcing of distress concrete structures.

CICO POXY –SBA can be used for bonding additional reinforcement as structural

adhesive between concrete and steel or fresh concrete. By doing so, the load bearing capacity or structural strength of a reinforced concrete structure can be enhanced. **CICO POXY –SBA** remains unaffected by the high moisture content of the fresh concrete.

FEATURES

- Pack `A` white and Pack `B` black in colour, on intermixing uniformly yields a grey colour.
- Simple dosing ratio in terms of packs.
- Easy to mix even at low temperature.
- NON-SAG; suitable for use on dry and damp surfaces.
- Thick non-drip consistency at high temperature.
- Non-Shrinking material.
- Excellent squeezability.
- High early strength according to the grade used.
- Superb adhesion with concrete and many other substrates.
- High quality product under rigid quality control system.
- Applicable for wide range of temperature (5°C to 45°C)

APPLICATION

All surfaces should be clean, free from stagnant water, cement laitance and loosely adhering particles. **NO PRIMER IS REQUIRED.**

Mix Pack `B` (black) with Pack `A` (white) with a mixing paddle attached to a slow speed

electric drill (Max. RPM 400) for at least three minutes or till uniform grey colour results.

Mixed material is used by trowel or spatula over the surface. Material should be well rub-

bed over the application surface. Maximum thickness in one horizontal layer may be upto 30mm and on vertical surfaces, the built-up thickness may be upto 12mm.

TECHNICAL DATA

Parameters	FIP Requirements	Typical Value
Pot life at 30°C	Not less than 20 minutes	30
Open time	Not less than 60 minutes	After 60 minutes concrete failure
Thixotropy (Sag)	Not more than 30mm in 10 minutes	0.09mm in 10 minutes
Angle of Internal Friction (Squeezability), load in kg	Area of Spread, Sq. mm	Area of spread, Sq. mm
15	Minimum 3000	4500
200	Minimum 7000	8200
400	Minimum 10000	10300
Compressive Strength, MPa		
24hours	>60	75
7days	>75	95
Bonding of cured bonding agent to concrete (M-40) surfaces to be joined 0-45 minutes	No joint failure	Passes test
Tensile Bending Strength	No joint failure at 10 MPa (min.)	Concrete failure at 11.5 MPa
Shear Bond Strength	No joint failure at 12MPa (min.)	Concrete failure at 13.8 MPa
Heat Resistance at 50°C	No joint failure at 10 MPa (min)	Concrete failure at 12.4 MPa
Shrinkage	Not More than 0.4%	Nil
Instantaneous Modulus of elasticity under compression, MPa	Not less than 8000	10900
Instantaneous Modulus of elasticity under Shear, MPa	Minimum 1500	3500
Creep		
Deferred modulus of elasticity, MPa	Minimum 6000	Passes Test
Deferred shear modulus, MPa	Minimum 1200	Passes Test
Water absorption	0.5% (Max)	Passes Test
Solubility	0.1% (Max)	Passes Test
Specific Gravity		1.6-1.7
Coverage		1.6kg /mm/m ²
Shelf Life		24 months



Temperature of Testing Pot Life of 100g mix °C	Pot Life in minutes for		
	Rapid Set (RS)	Normal Set (NS)	Slow Set (SS)
20	>30	>30	30
30	>30	30	< 30
40	30	<30	< 30

STORAGE

Keep it in a dry place.

PACKAGING

1Kg & 4kg

HEALTH & SAFETY

Avoid direct contact with soft skin for prolonged time. This may cause skin irritation. Wash hands with soap water.

Important Note:

All CICO products are sold in the market after strict Quality Control in line of ISO 9001 and guaranteed against any manufacturing defect. Although the basic formulation of Company's products generally remains unchanged, production refinements arising from continuing research and evaluation program may occasionally result in marginal changes in properties. CICO aspires to ensure that any recommendation, advice, test data, specification, method statement and other information given in this product datasheet is accurate and best of company's knowledge. Since, the company (CICO TECHNOLOGIES LTD) has no control over the selection of its product, applicators, application methodology, how and where it is applied, therefore, the company cannot accept any liability directly or indirectly arising from the use of its product. It is important to any customer, user or specifier satisfies him / herself that the product is suitable for the intended purpose including health, safety and environmental aspect. Unless or otherwise agreed in writing, all products of the company are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. All customers, users, specifiers should ensure that they examine the suitability of the product with company's latest product data sheet.

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