

CHRYSO® STICK -SBA

Solvent Free Thixotropic Epoxy Adhesive for Segmental Bridge Construction



Description

CHRYSO STICK SBA is a solvent free thixotropic structural grade two part epoxy adhesive especially formulated for bonding prefabricated concrete bridge segments. It is available in three grades depending upon application temperature.

1. **CHRYSO STICK SBA20 (FAST SET)-For 5 to 20°C**
2. **CHRYSO STICK SBA30 (NORMAL SET)-For 15 to 30°C**
3. **CHRYSO STICK SBA40 (SLOW SET)-For 25 to 40°C**

CHRYSO STICK SBA conforms to FIP specification

Domains of Application

Used as an adhesive for precast segmental bridge elements and provides a structural and water tight joint. It can also be used as a pointing material for stone masonry, heavy duty ceramic and cement tiles.

Method of Application

Surface Preparation

Substances must be sound, dry, clean and free from laitance, ice, standing water, grease, oils, old surface treatments or coatings and all loose or friable particles must be removed to achieve a laitance and contaminant free, open textured surface. **Steel:** Must be cleaned and prepared thoroughly to an acceptance quality i.e. by shot blasting and vacuum cleaning. Surface temperature must be 3°C above dew point.

Mixing

A suitable power driven mixer / stirrer is recommended for uniform mixing of the **CHRYSO STICK SBA**. Stir the base and hardener separately. Mix hardener gradually into the base under continuous stirring as per the stated mixing ratio. Continue mixing for 3-4 minutes. Mix well for 5-6 minutes till the components become homogeneous.

Application

The product shall be spread by steel trowel or putty knife to the required thickness. Apply the mixed material on both sides of the surfaces to be bonded. The joint should be closed immediately or within the open time of the adhesive (max 60 minutes).

Advantages

- Non slump
- Primer less
- High initial and ultimate strengths.
- Impermeable to liquids and water vapor
- Suitable for dry and slight damp concrete surfaces
- Hardening is not affected by humidity
- Thixotropic: non-sag in vertical and overhead applications
- Solvent free
- Hardens without shrinkage
- Different colored Parts (for homogeneous mixing).

Shelf Life & Storage

12 months from the date of manufacturing when stored in un-opened, original sealed and dry condition at a temperature range from +5°C to 40°C

Packing

6kg, 15kg kit



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Indicative Characteristics

CHARACTERISTICS	FIP REQUIREMENTS	TYPICAL VALUE
Mixing Ratio (Pack A: B), by wt.		2:1
Pot life , minutes	Not less than 20	32
Open time, minutes	Not less than 60	>60
Thixotropy (Sag), mm in 10 minutes	Not more than 30	<12
Squeezability, Area in Sq.mm)		
Load in kg, 15	Minimum 3000	4730
400	Minimum 10000	11300
Shrinkage	Not More than 0.4%	Nil
Comp. Strength, 24 hours, MPa	>60	76
Comp. Strength, 7 days, MPa	>75	87
Tensile Bending Strength	No joint failure at 10 MPa (min.)	Concrete failure at 12.5 MPa
Shear Bond Strength	No joint failure at 12MPa (min.)	Concrete failure at 14.8 MPa
Heat Resistance at 50°C	No joint failure at 10 MPa (min)	Concrete failure at 12.4 MPa
Water absorption	0.5% (Max)	Passes Test
Solubility	0.1% (Max)	Passes Test
Specific Gravity		1.6 ±0.2
Coverage, kg/mm/m ²		1.6

Precautions

- Store the material at the 5° to 40°C temperature range in shaded cool place and keep it away from fire and any heated body. Clean all tools with MEK or any standard solvent before polymerization starts.
- Mix only sufficient materials for immediate requirements. Leave the mixed material to stand for 5-8 minutes for induction reaction followed by re-mixing and then use as quickly as possible.
- Do not mix large quantity at a time; this may lead shorter pot life. Use the mixed material within the 10-20 minutes after mixing to avoid gelling.
- Application temperature must be 3°C above the dew point but not more than 40°C.
- Do not apply on wet surface though bond strength of slightly damp concrete surface is good

Safety

- Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet.

The MSDS is available on www.chryso.com

The information contained in this technical data sheet is given to the best of our knowledge and the results from extensive testing in order to remain as objective as possible. However, it cannot, in any case be considered as a warranty involving our liability in case of misuse or any different use of our products from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users. Consult the latest update of the technical data sheet on our website www.chryso.com

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