

BANTEK CP ERHP 119

PRODUCT DATA SHEET

TWO PART EPOXY RESIN, DESIGNED FOR STRUCTURAL STRENGTHENING APPLICATIONS AS PART OF BANTEK CP. STRENGTHENING SYSTEM

DESCRIPTION

BANTEK CP ERHP119 IN is a two part, thixotropic epoxy based impregnating resin / adhesive, designed for structural strengthening applications using dry or wet Application process along with BANTEK Wrap® fabrics.

USES

BANTEK CP ERHP119 @-330 IN may only be used by experienced pro-fissional.

BANTEK CP ERHP119 IN is used as:

- Impregnation resin for BANTEK Wrap® fabric reinforce-ment for the dry application method
- Primer resin for the wet application system
- Structural adhesive for bonding BANTEK Wrap® to even surfaces

CHARACTERISTICS / ADVANTAGES

- Easy mix and application by trowel and impregnation roller
- Manufactured for manual saturation methods
- Excellent application behavior to vertical and over-head surfaces
- Good adhesion to many substrates
- High mechanical properties
- No separate primer required

PRODUCT INFORMATION

Chemical Base	Epoxy resin	
Packaging	Pre-batched unit (A+B)	3 kg
	Part A	2 kg plastic container
	Part B	1 kg plastic container
Color	Part A	White paste
	Part B	Black paste
	Part A+B mixed	Grey
Shelf Life	12 months from date of production	
Storage Conditions	Store properly in original unopened, sealed and undamaged packaging in dry conditions at temperatures between +5°C and +45°C. Protect from direct sunlight.	
Density	1.4 ± 0.1 kg/liter (Part A+B mixed) (at +30°C)	
Viscosity	~39900 Cps (at +30°C)	

TECHNICAL INFORMATION

Modulus of Elasticity in Flexure	~2800 N/mm ² (6 days at +30°C)	(ISO 9001)
Tensile Strength	≥ 30 N/mm ² (6 days at +30°C)	(ISO 9001)
Modulus of Elasticity in Tension	~3500 N/mm ² (6 days at +30°C)	(ISO 9001)
Elongation at Break	0.9% (6 days at +30°C)	(ISO 9001)
Tensile Adhesion Strength	≥ 10 N/mm ² (after 1 day on concrete at 30° C) (Concrete fail-urea)	
Coefficient of Thermal Expansion	4.5 x 10 ⁻⁵ per °C (-10°C to +45°C)	
Thermal Compatibility	+45°C continuous exposure	
Chemical Resistance	The product is not suitable for chemical exposure.	
Heat Deflection Temperature	+61°C (after 6 days at +30°C)	
Service Temperature	0°C min / +45°C max.	

SYSTEM INFORMATION

System Structure	<u>Substrate primer</u> BANTEK CP ERHP119 IN <u>Impregnating / laminating resin</u> BANTEK CP ERHP119 IN <u>Structural strengthening fabric</u> BANTEK Wrap® type to suit requirements
-------------------------	--

APPLICATION INFORMATION

Mixing Ratio	Part, A: Part B = 2: 1 (by weight) When using bulk material, the exact mixing ratio must be safeguarded by accurately weighing and dosing each component.
Consumption	This will be dependent on the roughness of the substrate and the type of fabric to be impregnated. See respective BANTEK Wrap® fabric Product Data Sheet and “Method Statement for BANTEK Wrap® dry Application”. Guide: 1 - 2 kg/m ²
Ambient Air Temperature	+10°C min. / +40°C max
Dew Point	Beware of condensation! Substrate temperature during application must be at least 3°C above dewpoint.
Substrate Temperature	+10°C min. / +40°C max
Substrate Moisture Content	≤ 4% (Test method: BANTEK ® meter)
Pot Life	~25 minutes (100g mass at +30°C) arts with the mixing of both parts (resin and hardener). At low ambient temperature pot life will be extended, at elevated temperatures this will be reduced. The higher the quantity of material mixed, the shorter the pot life to achieve a longer pot life at high temperatures the mixed material may be divided into smaller units or both parts may be cooled before mixing.
Open Time	~50 minutes (100g mass at +30°C)
Waiting Time / Over coating	6 hrs. min. (at +30°C of Substrate Temperature) Cured resin older than 7 days has to be degreased with BANTEK® Calm Clean- err and gently grinded with a sandpaper before coating. Times are approximate and will be affected by changing ambient Conditions

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound and of sufficient tensile strength to provide a minimum pull off strength of 1.0N/mm² or as per the requirements of the design EC / ISO- confiscation The surface must be dry and free of all con-dominants such as oil, grease, coatings and surface treatments etc. Please refer to "Method Statement for BANTEK CP ERHP119 dryapplication".

SUBSTRATE PREPARATION

- Concrete and masonry substrates must be preparedmechanically using abrasive blast cleaning or grinding equipment, to remove cement laitance, loose and friable material to achieve a profiled open tax- turned surface.
- Timber substrates must be planed or sanded.
- All dust, loose and friable material must be completely removed from all surfaces before application of the BANTEK CP ERHP119 IN preferably by brush and in- doctrinal vacuum cleaner. Weak concrete/masonry must be removed and surface defects such as honey-combed areas, blowholes and voids must be fully exposed.
- Repairs to substrate, filling of blowholes/voids and surface leveling must be carried out using IN and BANTEK CP ERHP119 IN adhesive.
- Bond tests must be carried out to ensure substrate preparation is adequate.
- Inject cracks wider than 0.25 mm with BANTEK ERH107 or other suitable BANTEK CP ERHP119 @ injection resin.
- Please refer to "Method Statement for BANTEK Wrap@ dry application".

MIXING

Mix parts A+B together for at least 3 minutes with a mixing spindle attached to a slow speed electric drill (max. 310 rpm) until the material becomes smooth in consistency and a uniform grey color. Avoid aerationwhile mixing. Then, pour the whole mix into a clean container and stir again for approx. 1 more minute at low speed to keep air entrapment at a minimum. Mix only that quantity which can be used within its pot life.

APPLICATION METHOD / TOOLS

Please refer to "Method Statement for BANTEK Wrap@ dryapplication".

CLEANING OF TOOLS

Clean all equipment immediately with BANTEK® Colm Cleaner. Cured material can only be mechanically re-moved.

LIMITATIONS

- BANTEK CP ERHP119 IN may only be used by experiencedprofessionals.
- BANTEK CP ERHP119 IN must be protected from rain for at least 24 hours after application.
- Ensure placement of fabric and laminating with rollertakes place within open time.
- BANTEK CP ERHP119 fabric must be coated with a cement ties overlay or coating for aesthetic and/or protect-vie purposes. The over coating system selection is dependent on the exposure and the project specific requirements. For additional UV light protection in exposed areas use BANTEK CP ERHP119 550W IN or BANTEK CP ERHP119 PU UR
- At low temperatures and / or high relative humidity, a tacky residue (blush) may form on the surface of the cured BANTEK CP ERHP119 IN epoxy. If an additional layer of fabric, or a coating is to be applied onto the cured epoxy, this residue must first be removed to ensure adequate bond. The residue can be removed with water. In both cases, the surface must be wipeddry prior to application of the next layer or coating.
- For application in cold or hot conditions pre-condition material for 24 hours in temperature controlled storage facilities to improve mixing, application and pot life limits.
- The number of additional fabric layers applied wet on wet must be closely controlled to avoid creeping,creasing or slippage of the fabric during curing of BANTEK CP ERHP119 IN. The number of layers will be de- pendent on the type of BANTEK Wrap@ fabric used and the ambient climate conditions.
- For further information on over coating, number of layers or creep, please consult a structural engineer for calculations and see also the "Method Statementfor BANTEK Wrap@ dry application".
- BANTEK CP ERHP119 @ resins are formulated to have low creep under permanent loading. However due to the creep behavior of all polymer materials under load, the long term structural design load must account for creep. Generally, the long term structural design loadmust be lower than 20-25% of the failure load. Please consult a structural engineer for load calculations for your specific application.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet arebased on laboratory tests. Actual measured data may vary due to circumstances beyond

- Impregnation resin for BANTEK Wrap® fabric reinforce-mint for the dry application method
- Primer resin for the wet application system
- Structural adhesive for bonding BANTEK Wrap® to evensurfaces

PRODUCT INFORMATION

Chemical Base	Epoxy resin	
Packaging	Pre-batched unit (A+B)	3 kg
	Part A	2 kg plastic container
	Part B	1 kg plastic container
Color	Part A	White paste
	Part B	Black paste
	Part A+B mixed	Grey
Shelf Life	12 months from date of production	
Storage Conditions	Store properly in original unopened, sealed and undamaged packaging in dry conditions at temperatures between +5°C and +45°C. Protect from direct sunlight.	
Density	1.4 ± 0.1 kg/liter (Part A+B mixed) (at +30°C)	
Viscosity	~39900 Cps (at +30°C)	