

## CC Quantum<sup>®</sup> L

### Substrate Levelling Adhesive

#### CHARACTERISTICS

CC Quantum L substrate levelling adhesive is used to repair surface defects prior to the application of either CC Quantum Plate or CC Quantum Fabric strengthening system. Levelling the substrate will ensure either the CC Quantum Plate or Fabric will bond as designed.

#### APPLICATIONS

- Uneven and damaged substrate
- Protect exposed steel reinforcement from corrosion
- Mitigate the possibility of cracks propagating due to damaged substrates
- To be combined with CC Quantum A adhesive and CC Quantum S saturant resin

#### BENEFITS

- Conforms well with substrate damage, holes, dents or similar
- No shrinking post cures
- Excellent long-term performance
- Good physical performance after curing, strong toughness
- Water and Corrosion resistant
- Excellent bonding compatibility with CC Quantum A and CC Quantum S

#### STANDARDS

- ASTM

## DESCRIPTION

### Form

Component	Texture	Colour
Part A: - Epoxy	Paste	Grey
Part B: - Hardener	Paste	White
Part A+B mixed	Paste	Light Grey

### Technical Data

Mixing ratio (A: B)	2:1
Form	Thixotropic paste
Density	1.85kg/litre
Service Temperature	10-40°C
Pot life (in minutes)	45 min at 20°C 20 min at 40°C
Setting time	1-2 hrs. at 25°C
Cure Time	Initial cure 24 hours. Full cure 2-4 days (Subject to Ambient Temperature)

### Mechanical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE	UNITS
Tensile Strength*	ASTM D638	8	MPa
Flexural Strength*	ASTM D790	25	MPa
Compressive Strength*	ASTM D695	50	MPa
Adhesion to Concrete	ASTM D4541	3.5	MPa
Steel-Steel Bonding Strength	ASTM D4541	21	MPa

\* Tested at 7 days at 20°C.

NOTE: All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## INSTRUCTIONS

### Substrate Preparation

Prior to application of any CC Quantum material products it is expected that the substrate be appropriately prepared according to the following:

- Ensure that all surfaces are cleaned, this entails the removal of a surface contaminates such as oils, grease, dust and other contaminates which could affect the bonding of the CC Quantum system.
- Specifically, for Concrete, Mortar and Stone which is still in good working condition, it is recommended to Mechanically abrade the surface with a needle gun, water blast, grit blast or grind. For small areas wire brushing (mechanical) is adequate.
- For degraded substrates, it is recommended to remove the affected area and restore allowing sufficient time to cure before applying CC Quantum System.

### Mixing

Part A: part B = 2: 1 by weight

Thoroughly stir both components Part A (Epoxy) and Part B (Hardener) separately using a slow running stirrer with a helical paste mixer or by hand if dealing with small quantities until a uniform colour is reached.

### Application

- CC Quantum L shall be applied using trowel, spatula or other similar equipment which will allow for an even and smooth application.
- The adhesive shall be applied to ensure an even flat surface
- CC Quantum L shall be allowed to dry prior to additional working
- There should be no standing water on concrete surfaces.

### Cleaning

Cleaning of applicator tools and surrounding surfaces can be achieved using an appropriate solvent (MEK or Acetone). Once the Adhesive has cured, the only means of removal shall be mechanically.

### Important Notes

- For simplicity and accuracy related to curing times and strength, always mix a full adhesive kit.
- Avoid part mixture to ensure correct ratio of Resin and Hardener
- Always take note of pot life, ensure CC Quantum L can be completely applied within the given time for the working temperature.
- Avoid diluting the mixture as this will affect curing time and bonding strength.
- During mixing, ensure there are no trapped air bubbles as will affect curing time and bonding strength.
- Ensure there is no standing water or other liquids on the application surface.
- An increased curing temperature can accelerate curing time, refer to technical data above.
- Minimum thickness 2 mm; maximum thickness 30 mm

For further information, consult our Technical Experts.

### Handling Precautions

- Use appropriate Personal Protective Equipment (PPE) when handling CC Quantum L mixture.
- At all times, avoid contact with the eyes and direct skin
- If mixture contacts eyes, immediately consult proceed to first aid to commence washing eye with water or specific eye bath liquid for up to 15 minutes. After which consult a doctor.
- If skin contact occurs, proceed to first aid and wash skin thoroughly.
- If mixture is swallowed, it is not recommended to induce vomiting. Rather proceed to first aid to receive medical attention.

For more information refer to Material Safety Data Sheet.

### SIGNBOARD

The contents shall be clearly marked on the product package:

- a) Manufacturer and address.
- b) Product name, brand and standards.
- c) Date of manufacture and batch number.
- d) Product quantity.
- e) Attention.

### PACKAGING

Part A(Epoxy): 5kg  
Part B (Hardener): 1kg

### TRANSPORT AND STORAGE

Store in dry conditions, storage temperatures should not drop below -5°C or exceed 40 °C, avoid direct sunlight and fire. Handle with care.

### SHELF LIFE

When stored at room temperature(25°C), the shelf life will be at least 12 months from the date of manufacture.

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#### Important notice

The data and information provided in this datasheet represent the typical properties that can be obtained from these products when properly processed in a controlled environment. The user should make their own assessment of the suitability of these products for the purpose required by conducting appropriate testing under conditions as close as possible to the proposed manufacturing conditions. Any advice or recommendation is given in good faith and no further duty or responsibility is accepted by the company. All such advice and every sale is subject to Cathay Composite's standard terms and conditions. The company reserves the right to change specifications without notice and customers should satisfy themselves that they are using the current version of the Technical Data Sheet.