

CC Quantum Rods

PULTRUDED CARBON FIBRE LAMINATE RODS

CHARACTERISTICS & APPLICATIONS

CC Quantum Rods are pultruded resin impregnated carbon fibre with a circular cross section, designed for strengthening concrete, timber and masonry.

Pultruded carbon fibre rods have high strength, strong corrosion resistance, are lightweight, have excellent durability and fatigue resistance. The pultruded rods are widely used in, but not limited to, improving the performance of a structure that has become damaged over time. Or for obtaining greater strength to weight ratios required on a project, replacing conventional materials, such as steel.

BENEFITS

Additional benefits are as follows:

- To stabilise vibrating structures
- Improvement of serviceability and durability
- Reduced deflection and crack width
- Stress reduction in the steel reinforcement
- Improved fatigue resistance
- Increased resistance to earthquakes, impact or explosions
- Non-corroding
- Very high strength
- Lightweight, very easy to install
- Improved resistance to fire

STANDARDS

- ASTM

CC QUANTUM RODS PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE	UNITS
Tensile Strength	ASTM D3039	3,000	MPa
Tensile Modulus	ASTM D3039	190	GPa
Elongation at Break	ASTM D3039	1.50	%
Density	ASTM D792	1.60	g/cm ³
Fibre Volume	ASTM D792	70	%
Glass Transition Temperature	ASTM D7028	85	°C
Appearance/Colour	-	Black	-

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.

TYPICAL STANDARDS CONFIGURATION FOR CC QUANTUM RODS

BRAND	DIAMETER	CROSS SECTION AREA
CC CFRP RODS-6	6 mm	28 mm ²
CC CFRP RODS-8	8 mm	50 mm ²
CC CFRP RODS-10	10 mm	79 mm ²
CC CFRP RODS-12	12 mm	113 mm ²
CC CFRP RODS-16	16 mm	201 mm ²

NOTE: The above table shows the current standard sizes; other product sizes can be customized according to customer requirements. Lead time applies.

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

CC Quantum Rods can be supplied in lengths up to 15 meter long.

Note: The length can be varied at the request of the customer.

TRANSPORT AND STORAGE

Store in dry conditions, storage temperatures should not exceed 50 °C, avoid direct sunlight and fire. Handle with care.

SHELF LIFE

Unlimited, providing the storage requirement are adhered.

AUSTRALIA

1/196 Mahoneys Road
Thomastown, Victoria
AUSTRALIA
3074

Email: enquiries@cathaycomposites.com.au

Web: www.cathaycomposites.com

ABN: 88 629 716 927

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.