



CT22
CT33
CT36
CT40

C-TECH SAILBATTENS

Strong, lightweight and proven, C-Tech SailBattens are recognised as the leading product on the market by world-class sailors.

View our full range here:

www.sailbattens.com/products/sailbattens

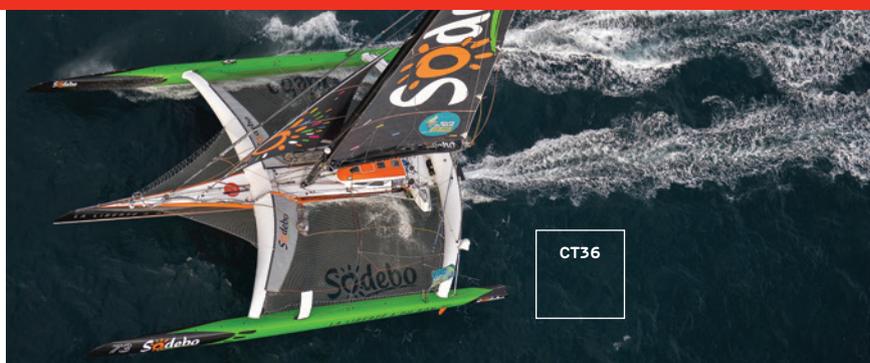


PHOTO: Sodebo (Ultim 100)
Christophe Favreau

C-Tech SailBatten products suit every type of sailing: from inshore racing to round-the-world record attempts, offshore cruising to the America's Cup.

The C-Tech SailBattens range of hollow, rectangular, composite fibre sail battens is suitable for yachts from 20ft in length up to the largest super yachts.

Full-length and leech battens are available for mainsails and jibs.

C-Tech SailBattens are designed for:

Monohulls

Yachts 20ft – 60ft: **CT22**
Yachts 50ft – 89ft: **CT33**
Yachts 90ft – 199ft: **CT36**
Yachts 150ft+: **CT40**

Multihulls

Yachts 20ft – 40ft: **CT22**
Yachts 30ft – 70ft: **CT33**
Yachts 70ft – 110ft: **CT36**
Yachts 110ft+: **CT40**

Standard or custom-made:

C-Tech produces both stock and custom-made battens with laminates to suit yacht/sail/stiffness/bend combinations.

- C-Tech SailBattens are available in a wide range of stiffness.
- There are standard sets for classes: e.g. TP52, RC44, Swan 50, Wally 100.
- Draft can be tailored to suit design.
- Laminates are customised to suit slab reefing or boom furling.

Key Features

- Made from prepreg carbon fibre and S-glass
- Tapered, hollow, rectangular sections
- Very strong and durable
- Lightest stiffness-to-weight ratio on the market
- Flat rectangular luff end
Can be built up to any thickness during manufacture
- Customised to fit with standard C-Tech receptacles or those of other brands
- Product tracking
Each batten has a barcode for identification and easy re-ordering
- Manufactured to any length with pre-fitted joins

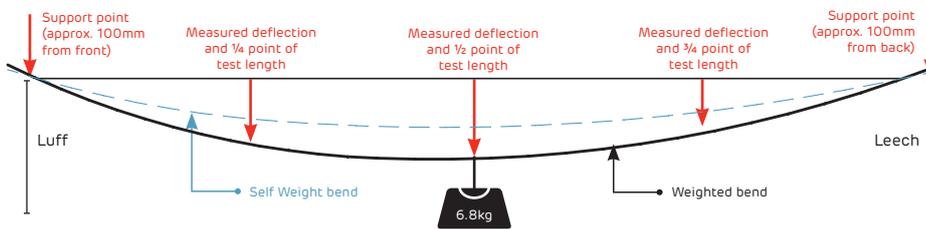
Design/Performance Advantages

A rectangular batten shape prevents point-loading and provides greater impact resistance than does the round shape.

Hollow battens, created using the mandrel-wrapped production system, can be manufactured to be lighter than solid battens.

A full-length taper provides the correct curvature for battens, which can be matched with laminate thickness to meet any stiffness specification.

BEND TEST DIAGRAM



EI (Nm²) =

$$\frac{[\text{Test Weight}] * 9.806 * [\text{Test Length}]^3}{48 * ([\text{Deflection}] - [\text{Self Weight}])}$$

Where: [Test Length], [Deflection] and [Self Weight] are converted to meters

[Test Weight] = 6.8 kg

ADVANCED TECHNOLOGY

C-Tech uses a mandrel-wrapped production system to manufacture **C-Tech SailBattens**. Purpose-built machinery and mandrels of varying sizes and tapers are used to create the hollow, rectangular shape, which is unique to **C-Tech SailBattens**.

Battens are designed with the most effective balance of fibre orientation and placement.

The result? Optimum stiffness, compression strength and shear resistance.

Custom-designed software allows laminate layers to be adjusted to tailor stiffness and draft position to meet specific sail requirements.

QUALITY CERTAINTY

Bend tests are performed on all **C-Tech SailBattens** to ensure correct camber and shape profiles are achieved. Results are checked against computer design specifications to ensure a quality product.

Laminate construction and bend test detail is stored in C-Tech's secure database. Each **C-Tech SailBatten** has a barcode so individual battens can be identified. This enables battens to be reproduced to the same specifications or tweaked for the next set in a development programme.

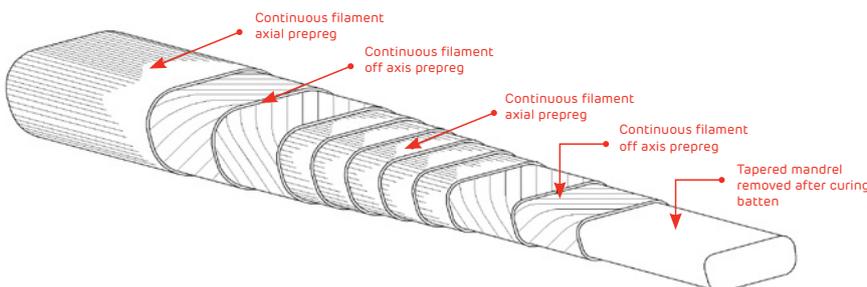
PERFECT FIT

The overall stiffness of each batten is represented by an Average EI, calculated from the three-point bend test as shown above. Bend test results are retained confidentially and can be supplied to the appropriate sail designers on request.

Using the **C-Tech SailBattens** software, a set of battens can be custom-designed to meet specifications supplied by a sailmaker or match outputs from sail design software. If design specs are not available, C-Tech staff can draw also on the wide range of information stored in the **C-Tech SailBattens** database to manufacture the correct set of sail battens for a particular yacht design or type of sailing.

Accurate information on batten size, weight and stiffness can be provided once batten design is complete.

LAMINATE DIAGRAM



Specifications

CT22 Full-length/Leech Battens

Compatible C-Tech SailHardware

Batten Type	Yacht (Type)	Yacht (Size)	Approx Avg Ei (Nm ²)	Max Size At Leech (Mm)	Luff (Non-adjusting)	Luff (Adjusting)	Leech (Non-adjusting)	Leech (Adjusting)
CT22 Carbon/S-glass	Monohulls Multihulls	20ft – 60ft 20ft – 40ft	30 – 400	17 x 28	CCLR NALR22 NPLR22C NTLR22	APLR22C CCLR-A ATLR22	DSLCC DSLIP	RSLT FTLTL22
CTL22 Leech, carbon/S-glass	Monohulls Multihulls	30ft – 150ft	30 – 400	17 x 28	–	–	DSLCC DSLIP	RSLT FTLTL22
CT22S Pure S-glass (No carbon)	Monohulls	20ft – 40ft	20 – 250	17 x 28	NALR22 NPLR22G	APLR22 APLR22G	DSLIP	FTLTL22
CTL22S Leech, pure S-glass (No carbon)	Monohulls	20ft – 50ft	20 – 250	17 x 28	–	–	DSLIP	FTLTL22

CT33 Full-length/Leech Battens

Compatible C-Tech SailHardware

Batten Type	Yacht (Type)	Yacht (Size)	Approx Avg Ei (Nm ²)	Max Size At Leech (Mm)	Luff (Non-adjusting)	Luff (Adjusting)	Leech (Non-adjusting)	Leech (Adjusting)
CT33S Carbon/S-glass	Monohulls Multihulls	50ft – 89ft 30ft – 70ft	100 – 2,500	28 x 41	NALR33 NTLR33 NTLR33A	ACL33 ATLR33 ATLR33L	DSLIP	FTLTK33 PALT33
CTL33S Leech, carbon/S-glass	Monohulls Multihulls	50ft – 150ft	100 – 2,000	28 x 41	–	–	DSLIP	FTLTK33 PALT33
CT33 Pure carbon	Monohulls Multihulls	50ft – 89ft 30ft – 70ft	400 – 3,500	28 x 41	NTLR33 NTLR33A	ACL33 ATLR33 ATLR33L	DSLIP	FTLTK33 PALT33

CT36 Full-length/Leech Battens

Compatible C-Tech SailHardware

Batten Type	Yacht (Type)	Yacht (Size)	Approx Avg Ei (Nm ²)	Max Size At Leech (Mm)	Luff (Non-adjusting)	Luff (Adjusting)	Leech (Non-adjusting)	Leech (Adjusting)
CT36S Carbon/S-glass	Monohulls Multihulls	90ft – 199ft 70ft – 110ft	250 – 4,000	38 x 50	NALR36 NTLR36 NTLR36A FCLR36	ATLR36	DSLIP	FTLTK36 PALT36 PALT36 SLEEVE
CTL36S Leech, carbon/S-glass	Monohulls Multihulls	90ft+	250 – 3,000	38 x 50	–	–	DSLIP	FTLTK36 PALT36
CT36 Pure carbon	Monohulls	90ft – 110ft	600 – 5,000	38 x 50	NALR36 NTLR36 NTLR36A FCLR36	ATLR36	DSLIP	FTLTK36 PALT36 PALT36 SLEEVE

CT40 Full-length Battens

Compatible C-Tech SailHardware

Batten Type	Yacht (Type)	Yacht (Size)	Approx Avg Ei (Nm ²)	Max Size At Leech (Mm)	Luff (Non-adjusting)	Luff (Adjusting)	Leech (Non-adjusting)	Leech (Adjusting)
CT40S Carbon/S-glass	Monohulls Multihulls	150ft+ 110ft+	4,000 – 20,000	42 x 62	FCLR40 NLR40	ATLR40	DSLIP	PALT PALT40 SLEEVE

NOTES:

- Batten sectional size varies depending on mandrel, taper (changes with batten length) and laminate thickness. Maximum leech sizes are approximate.
- Average Ei is calculated from a three-point bend test and represents the overall average stiffness of the batten.
- Maximum sectional length: CT22 can be joined at 5.8m; CT33 battens can be joined at 5.9m or 8.3m.
- Maximum sectional length: CT36 battens can be joined at 5.9m or 8.3m; CT40 battens can be joined at 9.75m.

SECTIONAL JOIN DIAGRAM

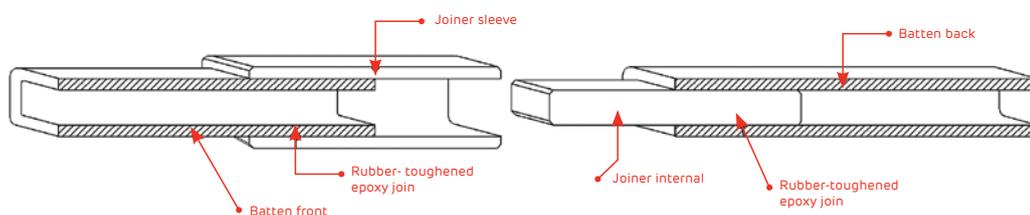


PHOTO: Charal (MOCA 60)
@Gauthier Lebec

CT33S

**In six years of racing,
we have broken only one
batten. That includes
25 regattas, multiple
transatlantic crossings,
race main, cruising main.
*It is amazing.***

Jonathan Kline
Captain P2

PEACE-OF-MIND PERFORMANCE

Through our ability to satisfy and stretch beyond customer expectations we have built a global reputation for time-tested performance.

Ordering

C-Tech SailBattens and C-Tech PlateBattens are available to sailmakers and end-users directly. To place an orders please contact: orders@sailbattens.com

Prices/Quotes

For price information or a quote, please e-mail C-Tech: info@sailbattens.com

Or complete the enquiry form on the C-Tech SailBattens website: www.sailbattens.com/orders.htm

Online Support and Installation Guides



Look out for our installation guides and batten repair brochures to ensure the maximum lifetime of our products. These can be downloaded from:

www.sailbattens.com
www.snuffair.com

- SnuffAir Instructions for Use
- FlexiFurl Installation Instructions
- SailBatten Joining and Trimming Instructions
- SailBatten Repair Instructions

Worldwide Delivery

C-Tech SailBattens products are delivered worldwide via sea freight or air freight.

Pre-fitted factory joins allow battens to be supplied in sections.

Joins must be glued on arrival, as the final strength of the batten depends on the glued join.



QUALITY CERTAINTY

All C-Tech's products are made expertly from robust, high-quality materials to exacting specifications. They are more than a match for the rigorous demands of performance and durability required by our customers.



PERFECT FIT

Few of C-Tech's customer needs are the same, so we offer an extensive range of products carefully designed to meet the many specialised requirements of our worldwide customers.



ADVANCED TECHNOLOGY

C-Tech has a continual R&D programme to refine existing composite products, introduce new materials and develop new product breakthroughs for customers.



FAST RESPONSE

C-Tech has the ability to adapt quickly to changing customer requirements and to provide rapid answers to all customer enquiries.



VALUE FOR MONEY

At C-Tech, we are performance rather than price driven; however, we always ensure our customers get optimum value for their money.



SailBattens

info@sailbattens.com

www.sailbattens.com

SnuffAir

info@snuffair.com

www.snuffair.com

C-Tech

info@c-tech.co.nz

www.c-tech.co.nz

C-Tech Ltd 551 Rosebank Rd, Avondale 1026, Auckland, New Zealand

postal PO Box 71-131, Rosebank 1348, Auckland, New Zealand

phone +64 (9) 810 8406 **fax** +64 (9) 828 0095

.....
Results are everything – **Performance-led Composite Solutions for Yachting, Sport and Manufacturing**