



**INCIDENCE**  
SAILS

Your project,  
the sails you need

OUR JOB IS ALSO  
TO ACCOMPANY YOU  
IN YOUR PROJECTS

MADE  
IN FRANCE



[www.incidence-sails.com](http://www.incidence-sails.com)  
High tech handmade craftsmanship





Cruise



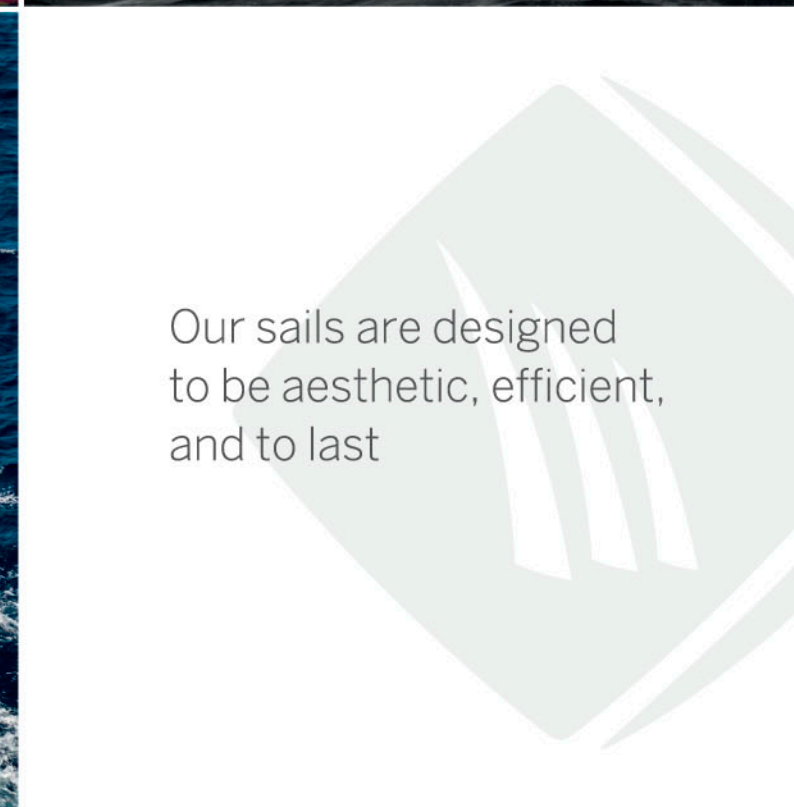
Regatta



Offshore racing



One Off



Our sails are designed to be aesthetic, efficient, and to last

**For every single boat its own sail. Each sail is unique**

We are committed to providing consulting services that are best suited for your requirements.



One design



Long trips



Classic yachts



# CRUISES AND LONG-COURSE TRIPS

Sailing on weekends,  
travelling, round  
the world trip dreams...



Looking for  
a simple and  
flexible solution

< YOUR PROGRAM

YOUR PROGRAM >

# RACES AND FAST CRUISING

Blue water, cruising, mostly fast.  
You love to trim your sails, and be  
the fastest on the racing field.  
You race whenever the opportunity  
comes about...



You need specific profiles  
and high-performance  
materials

## OUR SOLUTIONS

We offer sails conceived to last and perfectly adapted to your boat.

For easy and serene navigation, our downwind sails are conceived to be user-friendly and polyvalent, with a limited number of sails on board. Our flat sails are robust, with adapted weights and large reinforcements.

We adapt the material or the membrane in line with your program and your budget.



	Materials	Range
Flat sails	Dacron	D1
	Hydra Net® radial	D3
	Laminés Spectra	D3
Downwind sails	Maxilite Stormlite	

	Materials	Range
Flat sails	DCX	D2
	Pro Radial	D2
	D4®	D4®
	DFi® Offshore	DFi®
Downwind sails	Superkote	
	PX Black	
	CZ Optic 2	



## OUR SOLUTIONS

We offer you a package performance /endurance for a race-cruising program.

For the sake of performance and the pleasure of fine sails adjustments, our flat sails come with stable profiles while the downwind sails have specific range use.

We select the sail cloth or the membrane adapted to your program and budget.



# REGATTAS AND ONE-DESIGN

Participating in the OSIRIS or IRC circuit, sailing a one-design...



Your quest for performance begins with a close relationship with our design office

< YOUR PROGRAM

YOUR PROGRAM >

# OFFSHORE RACING

You are preparing for the Transquadra, the Cap Martinique, the Transat Jacques Vabre or the Route du Rhum...



You need performance, reliability, advice and service

## OUR SOLUTIONS

Together we conceive the set of sails adapted to your performance targets, to your boat and according to your budget.

The profiles, surfaces and materials will be optimised according to the measurement rules. Our team will be by your side to accompany you all along the season, a customized advice.



	Materials	Range
Flat sails	Laminated triradial	D2 - D3
	D4®	D4®
	DFi® Race	DFi®
Downwind sails	Laminated triradial Superkote DFi® Gennaker	

	Materials	Range
Flat sails	D4® DFi® Offshore	D4® DFi®
Downwind sails	Laminated triradial Superkote DFi® Gennaker	



## OUR SOLUTIONS

We will create the set of sails that will fully meet your requirements in terms of performance and reliability.

The profiles and materials that are used to create your sails will be selected according to your racing program. To optimise performance within your project, a multi-skilled team will provide you with guidance and advice on a long-term basis.



# CLASSIC YACHTS AND TRADITIONAL SAILING BOATS

Your passion?  
Competitors of classic Yachts  
and meetings of traditional sailing boats...

< YOUR PROGRAM

YOUR PROGRAM >

# SUPERYACHTS, ONE OFF

Travelling or cruising  
Planning a round the world trip.

“

Whether it is reliability,  
aesthetic, or performance  
concern, you are demanding...  
and you are right!

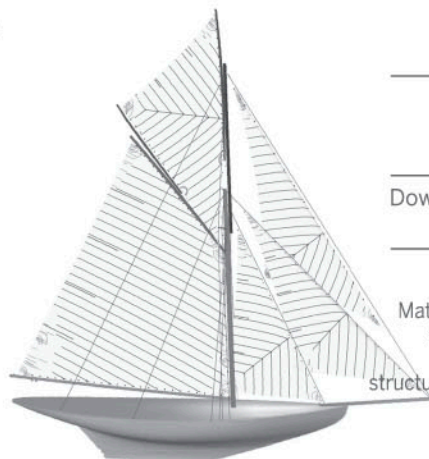
“

Your sailing rhymes with  
authenticity, elegance  
and performance

## OUR SOLUTIONS

We create with you, for your sailing boat,  
the most beautiful and efficient set of sails.

We make the most of our high-tech software to  
integrate the wooden rigs constraints to the  
profile structure.  
Like you, we are passionate racers. We are  
particularly attentive to details and work with a  
permanent concern when it comes to  
elegance and authenticity. The finish is hand-  
made, according to ancestral know-how of  
sail-makers masters.  
Each sail is unique and conceived to win and be  
admired.



### Materials

Flat sails	Woven white, beige or tan polyester (other colors available on demand)
Downwind sails	Superkote

Materials are selected with care and expertise,  
according to the age of your boat. They are  
adapted to traditional cuts, to the supple  
structure of wooden rigs and to the measurement  
constraints of classic yachts.

### Materials Range

Flat sails	DYS D4® DFi® Offshore	D3 D4® DFi®
Downwind sails	Superkote Stormlite DF® Radial DFi® Gennaker	



## OUR SOLUTIONS

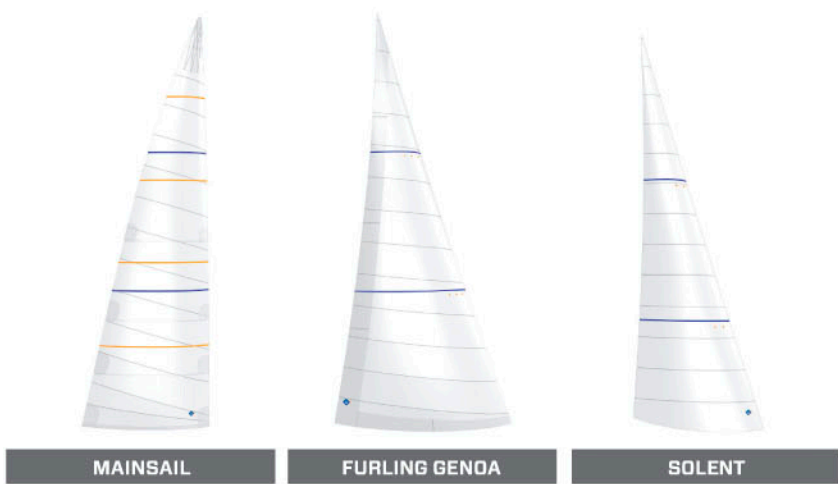
We offer you a unique set of sails conceived  
to last and user-friendly.

We study each and every detail of your techni-  
cal specifications in order to offer you sails  
perfectly adapted to your needs.  
Our team will be your adviser until the set-up of  
the sails and will ensure a follow-up.

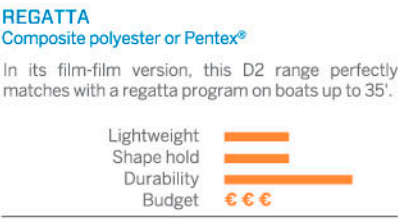
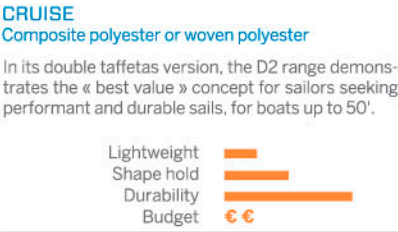
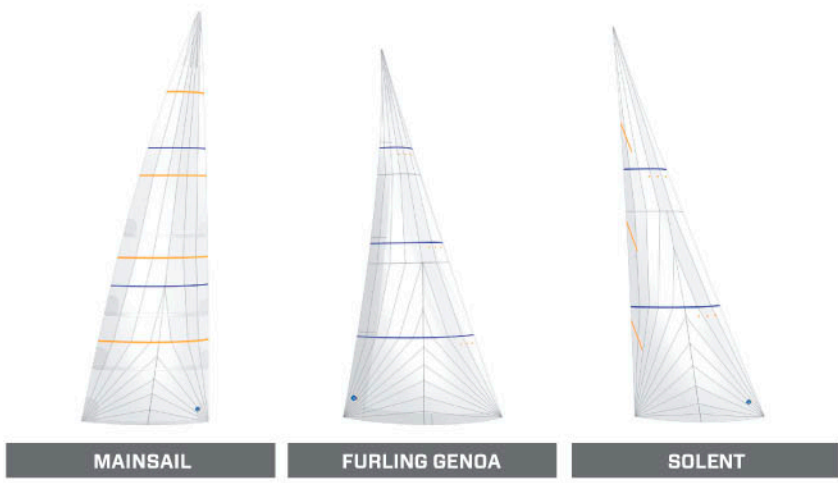


# PRODUCT LINES: flat sails

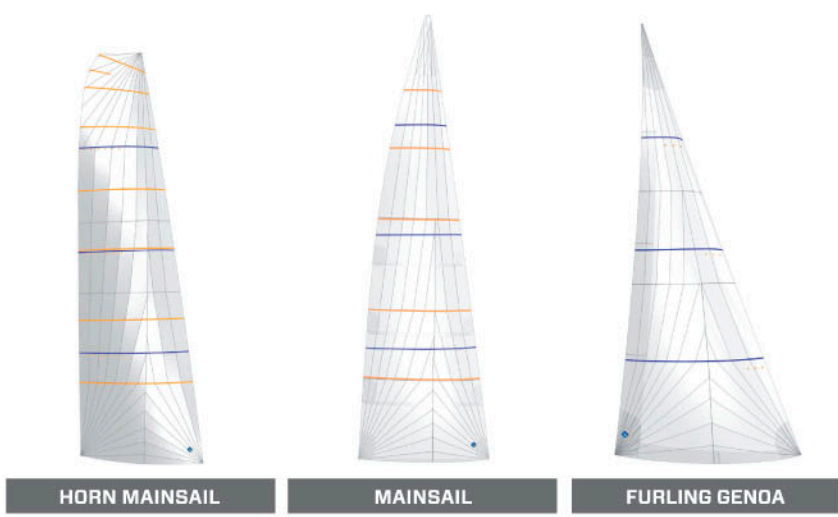
## D1 Simplicity, durability, accessibility



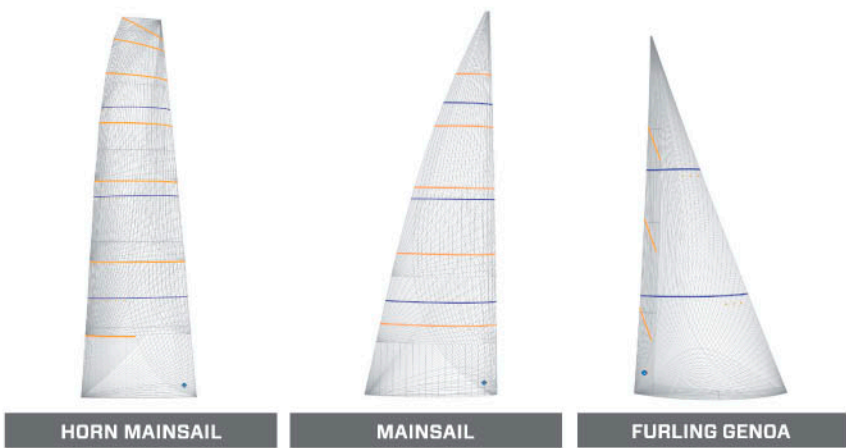
## D2 Efficient, robust, cost control



## D3 Shape holding and durability



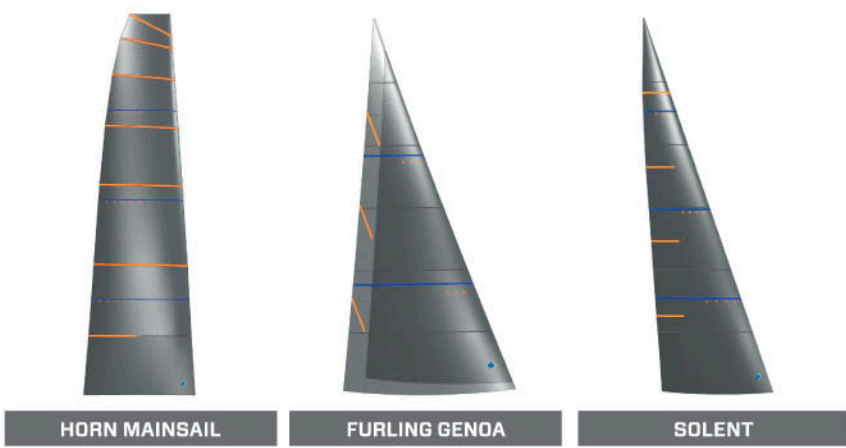
## D4® Reliability, performance, look



The D4® film membrane is made of encapsulated fibres sandwiched between two layers of polyester. The chemical features of the fiber (Polyester, Aramid, Vectran, Carbon...), their quantity and directions will be defined according to your boat and sailing program. The transparent film may be reinforced with taffetas to increase durability at the expense of weight. Every sail in D4® is unique and particularly aesthetic.



## DFi® Robustness, stability, lightweight, performance



Incidence's Filamentary membrane is exclusively made of pre-impregnated filaments. The absence of PET film is made possible thanks to the bursting of the fibres into filaments therefore able to cover the full surface of the sail. It offers exceptional durability to the sails, excellent shape holding capacity and the material is extremely light. The chemical features of the filaments (Aramid, Dyneema or FIT®), their combination, quantity and orientation are made to meet the mechanical stresses of the sail while sailing but also to fit your sailing program.





# THE MATERIALS

Materials, non exhaustive list. Ask our experts for advice.

Manufacturer's source:



## Flat sails

### Dacron - D1 range

Woven- Crosscut - All types of boats

This standard 100% **Polyester** woven fabric is a classic. It is the basic material for sails made for small one-design boats to large cruise yachts: From Optimists to passenger sailing ships!

Incidence uses the Strong Fill Dacron (SF) as its technical features makes it one of the best fabric on the market, its major asset being durability. Dimension Polyant has indeed created a range with exclusive specifications for Incidence, that enables them to create stable and long-lasting sails.



### DCX® - D2 range

Laminated - Triradial - From 26' to 50'

This laminated Cruise range has been conceived with the aim of minimizing stretching, getting a better durability and good handling capacity. Two layers of **Taffetas Polyester** are glued on different parts of a film supported by a grid which brings excellent performances and offers a reassuring resistance to tear. External taffetas covering the film and the grid are finished with a coating **UVM®** for an optimal resistance to UV Rays and a reduction of mildew development risk.



### Pro Radial - D2 range

Woven - Triradial - From 30 to 56 feet

The Pro Radial range meets the increasing requests for radial sails in woven **Polyester**.

The Pro-Radial has no shrinkage characteristics which is a real revolution in sails cloth and makes this woven cloth similar to a laminated Polyester one, in terms of stretching and weight, while keeping its durability, inherent to woven technology.

The Pro Radial is treated by technology **UVI®** for a high stability in front of UV exposure. It is available in 5 ranges from 30' to 56' boats.



### Hydra Net® radial - D3 range

Woven - Triradial - From 30' to 65'

The structural qualities of Hydra Net Radial® enables the replacement of laminated cloth. It associates high quality **Polyester** fibres to very resistant **Ultra-PE** fibres from the **Dyneema - Spectra** family.

Its one-of-a-kind weaving gives an exceptional hold, far more superior to 100% polyester materials whatever their technology. The radial cut ensures a good hold in every type of wind condition and on the long term.

This cloth presents a good weight/resistance ratio.



### Performance

	Tenacity	Module	Shape holding capacity	Assessment
	cN/dTex	cN/dTex	Comment	Rating/10
Aramid	21,4	813	Correct	9
UHMWPE	35,1	1160	Medium	6
FIT	29	1050	Very good	9,5
Vectran	28	654	Very good	8
Carbon	33	1578	Very good	10
PEN	8	187	Correct	3
Polyester	10	77	Correct	2
Nylon	9,5	45	Correct	1

### Durability

	Flexion resistance*	UV resistance**	Assessment
	Loss %	Month	Rating/10
Aramid	25	2	7
UHMWPE	0	7	10
FIT	2	1	9
Vectran	2	1	9
Carbon	100	Infinite	1
PEN	0	6	9
Polyester	0	6	9
Nylon	0	3	5

\* 60 flexions at 90° / \*\* time for module/2

Tenacity = tearing - Module = force to inflict a deformation

Shape holding = shape holding overtime

Aramid : Kevlar®, Twaron®

UHMWPE : Ultra PE, Dyneema®, Spectra®

### DYS® - D3 range

Laminated - Triradial - From 50' to 140'

This laminate is ideal for big cruises and its shape holding properties contributes to better performance. The **DYS®** Offshore technology offers a high-performance material with high resistance to tear, minimal stretching, an unequal good weight/resistance ratio and easy handling. The internal structure of the **DYS®** is made of a very strong grid, **Ultra-PE** taken in between 2 films, laminated on « **Ripstop** » taffetas. The **DYS®** is user-friendly and the maintenance is easy. It complies perfectly with specific constraints related to **offshore** racing and is ideally suited for large sails.



Dacron

Pro Radial

Hydra Net® Radial

DCX®

DYS®



# THE MEMBRANES

## INCIDENCE

SAILS



### D4<sup>®</sup> film membrane

Membrane - Flat sails - From 25' to 100'

This membrane is constituted of fibres threads sandwiched between two layers of polyester (transparent films).

The fibres (Polyester, Dyneema, Aramid, Vectran, Carbon...), their quantity and orientation are defined according to your boat and your sailing program.

The transparent film may be reinforced with taffetas for greater durability, although heavier.

Each sail in D4<sup>®</sup> is unique and particularly aesthetic.



Each sail in D4<sup>®</sup> is unique and particularly aesthetic.

	Fibres	Utilisation
<b>D4<sup>®</sup> Film film</b> (transparent)	Carbon / Aramid Carbon / Vectran Aramid / Vectran Aramid Pentex Polyester	Regatta, offshore racing
<b>D4<sup>®</sup> Film taffetas</b> (white or grey)	Carbon / Aramid Carbon / Vectran Aramid / Vectran Aramid Pentex Polyester	Regattas, cruises, offshore racing, travels

### DFi<sup>®</sup>, filamentary membrane

Filamentary membrane  
- Flat and downwind sails -  
From 25' with no limits

Incidence's filamentary membrane is constituted of prepreg filaments strips called tapes.

These tapes cover the entire surface of the material. Therefore, there is no need to add any film or taffetas, which offers a weight gain and better shape holding.

The tapes (Aramid, Dyneema, FIT<sup>®</sup>...), their association, quantity, orientation are developed to meet the mechanical solicitations of the sails during navigation and also to fit your sailing program.



	Fibres*	Utilisation	kind of sails
<b>DFi<sup>®</sup> Race</b>	Aramid / Dyneema FIT	Regattas, IRC events	Flat sails
<b>DFi<sup>®</sup> Offshore</b>	Aramid / Dyneema FIT / Dyneema	Offshore racing Cruises and travels	Flat sails
<b>DFi<sup>®</sup> Gennaker</b>	Aramid / Dyneema	Regattas, offshore racing, Cruises, travels	Gennakers

\* The quantity of fiber is in proportion to the size of the sails named in the chart, however the exact proportion is defined according to the specifications.  
**Dyneema** : UHMWPE (Ultra High Molecular Weight Polyethylene)





## **TAYLOR-MADE AND CRAFTED IN FRANCE**

Incidence Technologies is the only manufacturer in the world to produce two types of membranes: the D4®, film membrane and the DFi®, filamentary membrane.

## **ENVIRONMENT-CONCERN EVERYDAY**

Sails and membranes conceived and produced in France, in short production chain.

95% of the needed materials for the sails conception are of European origin.

Sails which are far more long-lasting means a lot of materials saved up: quality at the heart of our creation.

Optimized cuts to limit scraps which are partly used again for the creation of everyday objects by independent workshops.



# RANGES: downwing sails

## Symmetrical SPI - To use with spinnaker sock



**S1**

Very light weight spinnaker adapted to reaching in light winds. Flat shape.



**S2**

Medium weight and multipurpose downwind spinnaker.



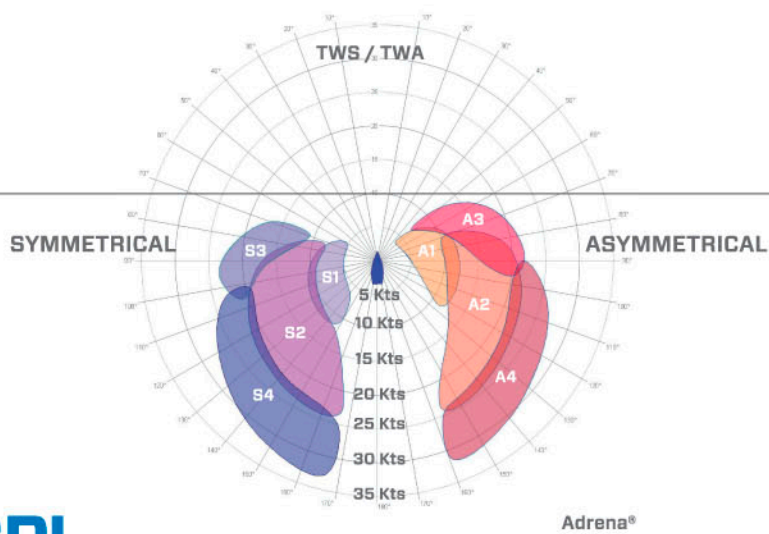
**S3**

Heavy weight spinnaker suited to higher angles in strong winds.




**S4**

Heavy weight downwind spinnaker suited to sailing downwind in strong winds.

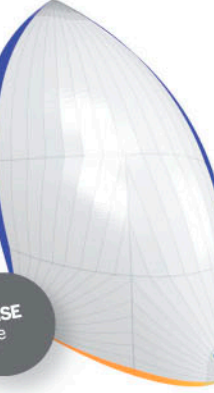


## Asymmetrical SPI - To use with spinnaker sock




**A1**

Very lightweight spinnaker adapted to reaching in light winds.




**A2**

Medium weight and versatile asymmetrical downwind Spinnaker with medium weight construction.



**A3**

Heavy weight spinnaker adapted to reaching in strong winds.




**A4**

Heavy weight spinnaker adapted to reaching in strong winds.


## CODE - Rigged on a furler

These sails can be made with Incidence's membrane




**CODE 0**

Lightweight genoa with a flat shape and light construction. The sail is ideal upwind in light air.



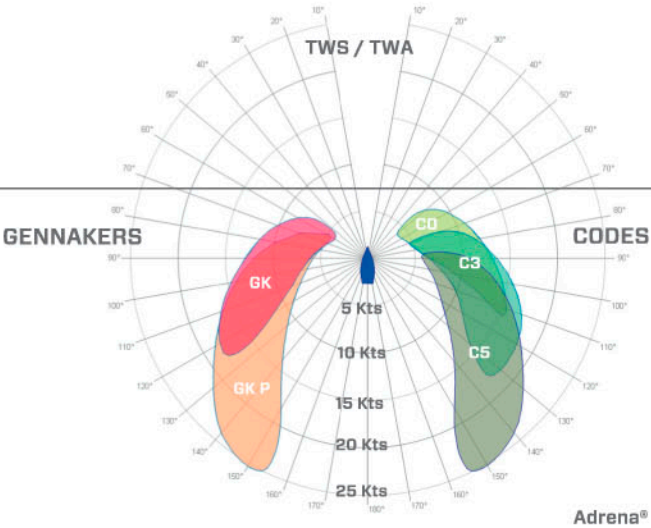
**CODE 3**

Gennaker a little deeper than the Code 0. For reaching in moderate wind. Medium weight.



**CODE 5**


Sail dedicated to breezy conditions. Relatively deep. Heavily built.



## GENNAKERS


- Rigged on a furler

These sails can be made with Incidence's membrane



**DOWNWIND GENNAKER**

Deep genoa, optimised for broad-reaching and downwind in medium wind. Medium weight.



**GENNAKER**

The most common and versatile head sail, it may be used from 0 to 30 knots. Medium to heavy weight.



# THE MATERIALS

Materials, non-exhaustive list. Ask our experts for advice.

Manufacturer's source:



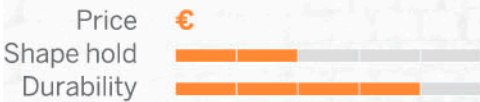
## Downwind sails

### Maxilite

Woven - Downwind Spinnakers and Gennakers

The choice of **Nylon** fibres, the quality of the weaving and finish of the Maxilite gives lightness, stability and resistance to tear and to rupture pressure.

The Maxilite is impregnated with a long-lasting finish.



### Superkote®

Woven - Spinnakers

The stability and lightness of the **Nylon** and Superkote cloths makes it possible for the Spinnakers to obtain a good ratio resistance/weight.

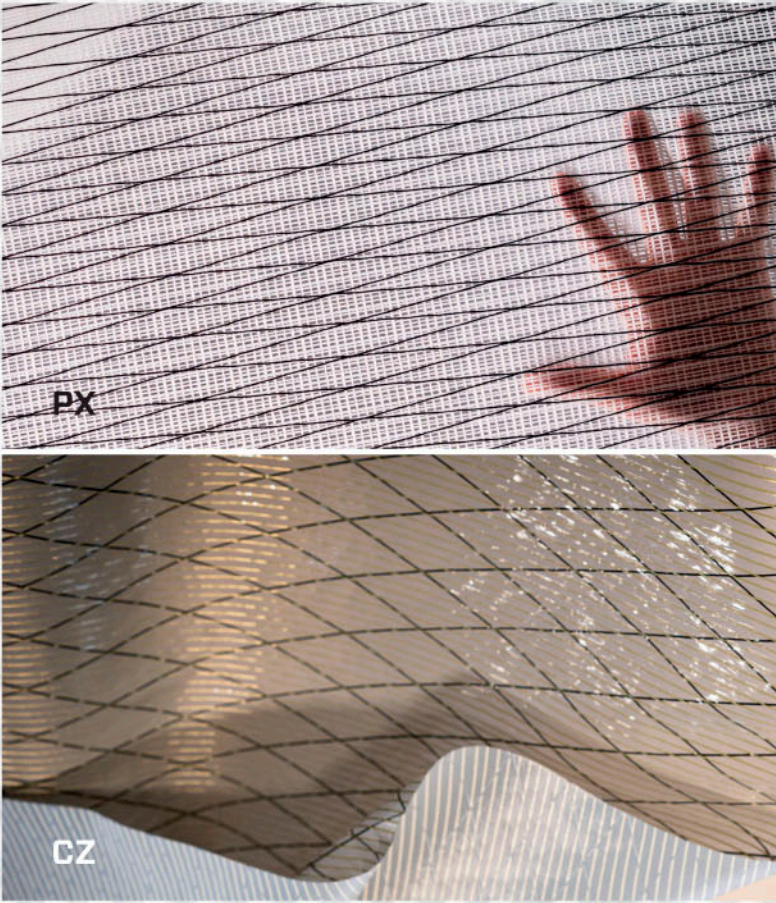
The Superkote polyurethane coating ensures a great stability, a minimum weight, 0% porosity and a high waterproofing.



### PX

Laminated film-film - From Code 0 to flat Gennakers

The PXB **Polyester** range benefits from a black coating on the fibres. This allows a better resistance to UV exposure and an efficient weight/stretchiness ratio during radial construction. The **X-PLY**® structure of Dimension-Polyant participates as a support related to secondary off-axis efforts in order to stabilize securely the material.



### Stormlite®

Woven - Gennakers and reaching leg sails

The Stormlite is used in the conception of Genakers for cruising or racing sails, resistant and easy to handle. The combination of a **Polyester** and a melanine (resin) impregnated fibre gives to the Stormlite a better shape hold than Nylon cloth normally used for Spinnakers.

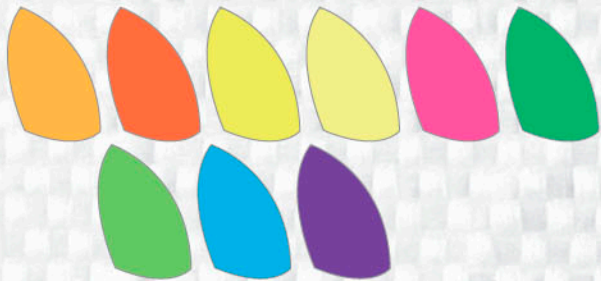
Resistance to Polyester fibre stretching gives it a good shape hold in every wind circumstances. This cloth bears also a better lifespan than Nylon as it offers a better resistance to UV exposure. These features makes it particularly suitable for very large spinnakers.



MAXILITE - SUPERKOTE - STORMLITE  
(standard colors)



MAXILITE - SUPERKOTE  
(optional colors)



### CZ

Laminated film-taffetas - Gennakers and reaching sails

Developed to offer a specific Gennaker material to go upwind until 55° in very light wind or on reaching legs, in medium wind or breeze, this material, initially recommended by offshore racers seduces more and more leisure sailing sailors.

A Code Zero is flatter than a gennaker so it is often used like a light Genoa sail. The strength/weight ratio is unrivaled.







Active listening,  
support,  
know-how  
and service

« Incidence Sails is a referenced supplier who we are all satisfied with. »

Stéphane Renard, chief designer  
at Outremer Yachting



## CUSTOM-MADE HIGH TECH

FOR MORE THAN 30 YEARS, INCIDENCE IS A REFERENCE  
IN OFFSHORE RACING AND NEXT TO ALL THE BIGGEST SHIPYARDS.

ON OUR SAIL LOFTS, AT SEA, BEHIND OUR COMPUTERS,  
THE INCIDENCE TEAMS ARE FULLY CONCERNED WITH  
THE CONCEPTION OF A SAIL CORRESPONDING  
IN EVERY ASPECT TO YOUR PROJECTS.

« We are very satisfied with the sails. We have met  
with no particular issues. And we are keeping them  
for the next trip! We are totally confident with the  
Incidence team. »

Brigitte and Denis Chabassière after 35 000 miles around the  
world on their XC 42 equipped with Hydra Net Radial® sails

## Incidence in short

- A proximity service in La Manche, the Atlantic and Mediterranean coast with 7 sail lofts and 3 design offices.
- A dedicated and committed team of racers, engineers, and technicians.
- Sails and membranes made in France.
- 95% French and European materials.
- Partnerships based on listening, quality and trust with the largest and most recent shipyards.
- An exceptional track record.
- First French sail-maker.

« The work we are doing with this sail-maker  
is fabulous for a researcher like me! We can  
talk about anything. There is knowledge and  
good ideas there, and they are a small enough  
structure to be reactive to demands.  
It is exciting and productive! »

Daniel Andrieu, marine architect and IRC sailor

The new 1500 m<sup>2</sup> Incidence sail loft in La Rochelle

[www.incidence-sails.com](http://www.incidence-sails.com)  
Custom-made high tech



# INCIDENCE SAILS FRANCE AND INTERNATIONAL

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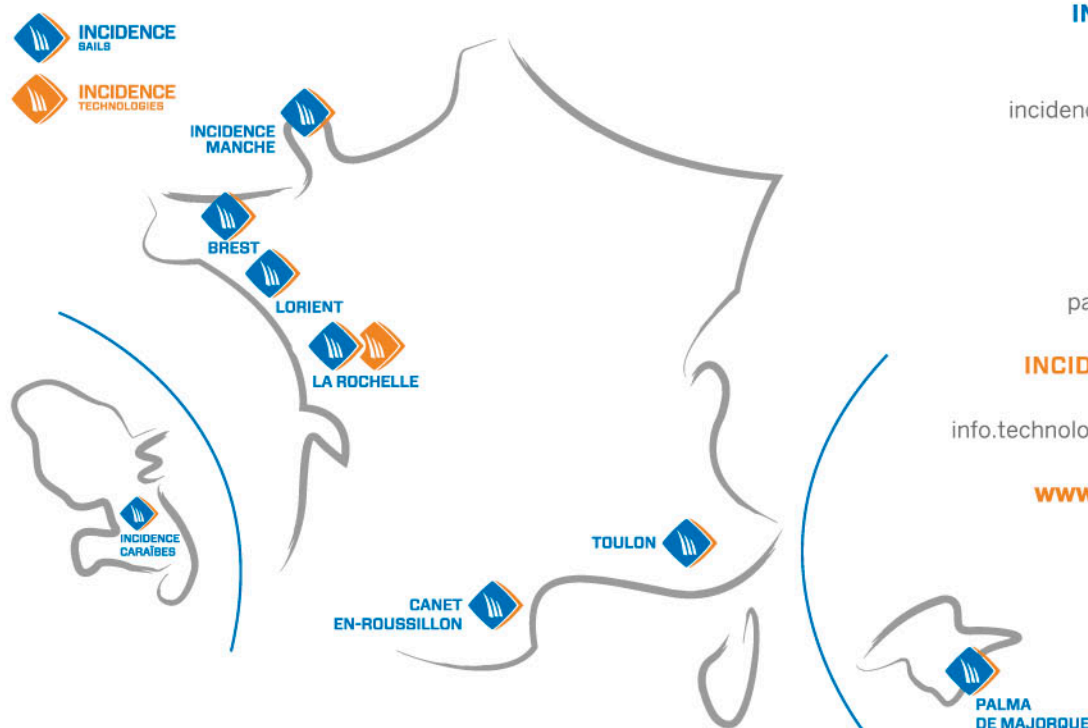
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## INCIDENCE WORLDWIDE

Sailing means travelling... sometimes long distances.  
Incidence has developed partnerships with professional sailmakers worldwide.

Map to find on [www.incidence-sails.com](http://www.incidence-sails.com)

