



THE HOTTER IT GETS
THE HARDER THEY WORK™

Shade is an amazing product. the hotter it gets, the harder it works. it runs for free and is without a doubt, the safest sunscreen ever invented.

Frontier shade sails will give you a life time of cool, UV protective shade.

CALL US RIGHT NOW

(ASK FOR MARK)

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THE ULTIMATE CUSTOM
DESIGNED SHADE CLOTH SAILS

110% PROUDLY MADE IN AUSTRALIA

FRONTIER™
SHADE SAILS



FRONTIER SHADE SAILS

Shade sails are an ideal way to protect everything from the sun's harmful rays. From your cars to your kids. Insist on 95% UV protective shade cloth. Commercial grade shade cloth also gives surprisingly good protection from rain and offers excellent protection from hail. Not only will you get a shade sail, you'll also get a hail sail, a shower protection sail and an architectural feature to add value to your property.

Shadesails have become a feature of the Australian landscape. They are a relatively low cost way to cover large areas with cool UV protective shade.

Custom made shade or sun sails offer a virtually limitless design options to shade any area. Turn a hot deck into the coolest most beautiful place in your home or a swimming pool into shady oasis.

Frontier Shade sails are made using a proprietary design which Shade Australia has refined over thousands of installations and a decade and a half of field testing. Made using the premium quality fabrics, threads and stainless steel fittings a Frontier custom made shade sail is an investment which will look great and last a lifetime.

Premium quality PTFE sewing thread ensures that the stitching will last as long as the fabric.



QUICK TIPS

With a cheap shade sail, the thread is always the first thing to fail. Frontier shade sails are made using ultra strong PTFE sewing thread which is extremely UV Resistant and promises to stand the test of time.



One great thing about shade sails is that they can be made to any shape or size. The first job is to install the posts or points of attachment. Once this has been done you then take the measurements and we make the shade sail to fit. Using our CAD (Computer Aided Design) system we take your measurements and our system draws a 3D model of the sail. It also alerts us if any of the measurements are incorrect. Typically we allow for less than 1% error for measurements. This ensures that when your shadesail arrives, it will fit perfectly.

Remember, shade is different to shadow. Shade creates a softer more inviting environment where-as areas in shadow can be cold and uninviting. The genius of shade sails is that they block out the UV Radiation while creating a cool and welcoming space without making it overly dark. It's one of the reasons why we think Shade should be Australia's new national product (right up there with meat pies and kangaroos).



SUSPENDED MID POINT

This is an effective way to minimise the gap between two shade sails installed side by side.

COLOURS & FABRIC SPECIFICATIONS

The technology used to manufacture shade cloth has come a long way in recent years. Advanced polymer compounds have been developed high are incredibly strong and resistant to UV degradation. Colours are vibrant and fade resistant.



Choose the perfect colour for your new shade sail. "Desert Sand" is a popular colour that can marry well with existing décor. "Aquatic Blue" is popular around swimming pools. "Natural White" is always popular for a clean modern look or go crazy with Bright "Yellow" or "Cherry Red". The choice is yours.



WHY A FRONTIER?

Frontier shade cloth sails are made using Synthesis C95 Commercial Grade shade cloth. Synthesis is constructed specially for tension applications such as shade sails. We have been manufacturing our sails using this fabric for over 15 years and it has truly proven itself to be a superior product. Synthesis C95 architectural shade fabrics are engineered using a time-proven monofilament and tape lock-stitch constructions to ensure optimum performance regardless of installations conditions. The fabric won't deteriorate or fray and the high quality construction provides for long-lasting performance, superior UV protection and unmatched strength.



SHADE FACTORS & % UVR BLOCK OF VARIOUS COLOURS

Colour	Cover Factor	Shade Factor	Av. UVR Transmis.	% UVR Blocks
Aquatic Blue	96.7%	88.2	5.8%	94.2%
Black	95.9%	95.9	4.9%	95.1%
Brunswick Green	97.4%	95.6	3.1%	96.9%
Cherry Red	94.9%	81.0	9.0%	91.0%
Desert Sand	96.5%	84.2	5.2%	94.8%
Natural	94.5%	78.9	4.9%	95.1%
Navy Blue	96.4%	95.7	3.2%	98.8%
Ochre Red	95.4%	94.4	3.3%	96.7%
Rivergum Green	95.7%	85.8	7.0%	93.0%
Sky Blue	95.2%	94.7	3.2%	96.8%
Steel Grey	97.3%	91.9	3.3%	96.7%
Turquoise	97.6%	89.6	4.6%	95.4%
Yellow	94.6%	77.0	6.7%	93.2%

Shade cloth fabric shall be compliant to Australian standard AS 4174 and shall be Synthesis Commercial 95 knitted HDPE monofilament & tape shade fabric offering a UV block up to 98.8%.

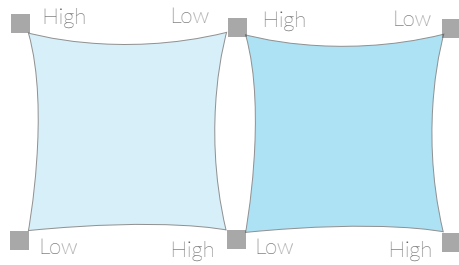
PLANNING

MAXIMIZE COVERAGE, MINIMIZE COST

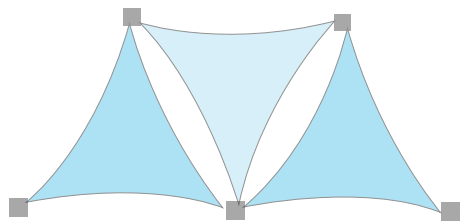
A good shadesail starts with a good design and carefully installed attachment points. Shade Australia can assist with a supplying fixing details for poles and mounting to other structures such as walls or rooves.



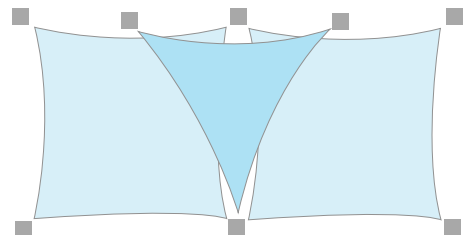
While we encourage you to be creative, we also caution you in getting to carried away. Realistically, a single large hypar shade sail is less expensive and gives better coverage than multiple shade sails. Having said that, here are some popular design that might give you some inspiration.



A double hypar is popular design. The central poles carry both a high and a low attachment point. A simple and effective design.



Although multiple triangles look great, they tend not to deliver optimal shade. The reason is the curvature of the sails. This leads to gaps between the sails which allow sunlight to enter.



This design gives quite an architectural feel to a courtyard or outdoor area. The triangular shadesail fits over the top of the two square or rectangular sails. The downside is that there are a lot of poles.

MORNING



MIDDAY



AFTERNOON



One of the best ways to plan a shade sail is to consider the path of the sun. In Australia the sun moves across the sky from east to west. This also means that the shade or shadow will also move through out the day. Typically in summer when the sun is high in the sky, the shade will fall close beneath the shade sail but in the morning or afternoon, the sun will fall outside the area of the sail. If you're wanting to use the shade later in the afternoon, such as over a swimming pool, then it can be wise to locate the shade, not directly above the pool but toward the setting sun in the west.

WHY A FRONTIER?

After a decade of design and countless shade sails installations right around Australia we've developed a system for manufacturing extremely high quality shade sails. We've branded them Frontier because to us that stands for pushing the boundaries and striving for the very best.

It starts with having someone you can call who knows what they're talking about. Once we give you some guidance and you get your points of attachment installed, you send us the measurements (we provide you with the measuring necessary measuring guides). We then use our proprietary CAD system to draw up your sail. This rules out any errors in measuring. Once cut, your sail is hand-stitched on industrial machines. At each stage it must pass through the ISO 9001 quality assurance checks to ensure that every stage has been completed to the highest standards.

You can expect your new Frontier to look great and last a lifetime. We know this because at no stage we do not scrimp of quality. Synthesis shade cloth, PTFE thread that will never need restitching, stainless steel cables and rings and cyclonic corners. Every little component has been engineered in so that you can relax and enjoy the benefits of your new Frontier Shade sail for years to come.

Commercial[®]
95 340

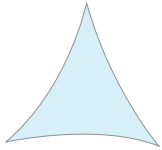
Our Commercial 95[®] 340 is the flagship product in our Architectural Shade Fabrics range.

Commercial 95[®] 340 is the flagship product in Gale Pacific's Architectural Shade Fabric range. It is the "the generic name" for architectural shade cloth in many parts of the world.

DESIGNS

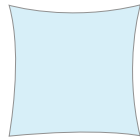
POPULAR SHAPES & STYLES

When it comes to good shade sail design there are some simple principles to keep in mind. Symmetrical shapes work best, that is, no long narrow rectangles or pointy triangles. Attachment points need to vary in height. This assists tensioning, diverts wind and give a more interesting architectural effect.



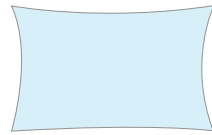
Triangular ✘

Triangular shadesails can look great but because of the curvature they tend to provide minimal shade.



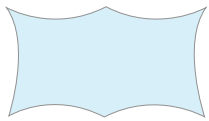
Square ✓✓✓

Square shade sails are a good design. Four points of attachment mean that the sail is symmetrical and give excellent coverage.



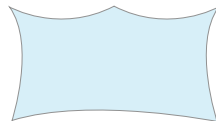
Rectangular ✓✓✓

Rectangular shadesails are also good shapes for shadesails. The shade sails should be reasonably symmetrical.



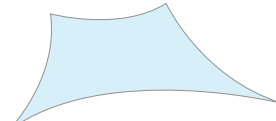
6 Point ✓

If you are planning a long rectangular sail then six points of attachment is a good way to minimize the loss of shade due to excess curvature.



5 Point ✓✓

Five point shade sails where the mid point is elevated are one of the best designs for shade sails. They look great and give good coverage.



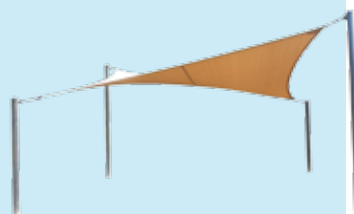
Rhomboid ✓✓

Shade sails don't need to be symmetrical. In fact they can be virtually any shape you like. Rhomboid sails are common and create architectural interesting shapes.



QUICK TIPS

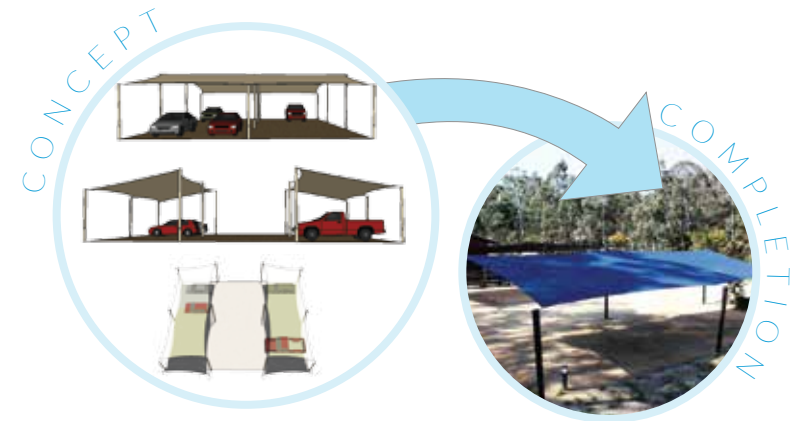
For a standard hypar, measure the longest side of the shade sail (e.g.: 6 metres) and multiply it by 15% (e.g. $6 \times 15\% = .9$). Take the lowest point and add .9 to it. This will give you the height to make the high posts.



HYPAR SHADE SAILS



Hypar shade sails are an industry standard. Hypar, (short for hyperbolic parabola), is a design where the high and low posts are diagonally opposed. This creates a twist in the sail which gives it interest and an architectural bent. Talk to us about the best designs for your hypar sail in regards how dramatic an impact you want to create (i.e., the greater difference in height of the poles, the more dramatic the end result).



CONCEPT TO COMPLETION

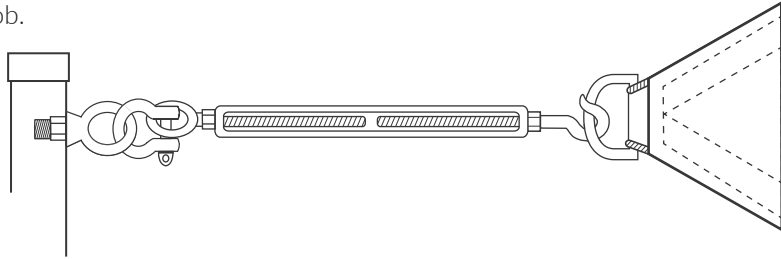
The secret to a successful shade sail project is good planning. As in this example the client requested a concept drawing of what the finished sail would look like. We were able to work with the client to draw these and only after sign off on the design did we go ahead and manufacture the sail.

Important things to consider when planning your new Frontier shade sail include:

- Have you checked the location of underground services?
- Do you require council approval?
- Are your attachment points strong enough to support the sail in strong winds?
- Are you using a shape which will give good shade protection?
- Do you know where North is so that you can predict where the shade will fall at certain times of the day?

FITTINGS & ACCESSORIES

When it comes to installing your shade sail we recommend the use of high quality stainless steel fittings. These not only have high strength loadings but they enhance the look of the finished job.



This is a typical corner installation. An Eyebolt with collar and nut fits through a single face of the pole and a bow shackle joints it to the turnbuckle. We recommend having the hook at the shade sail end, that way, it creates a fail-safe point. The weak point is the hook. If it lets go the turnbuckle falls safely back against the pole and the shade sail simply flaps down harmlessly.

TURNBUCKLES



Turnbuckles come in different configurations, the strongest being Jaw-Jaw. Hook-Hook turnbuckles are ideal for smaller shade sails.

BOW SHACKLE & D SHACKLE

Bow Shackles and D Shackle are used to connect the shade sail or turnbuckle to the eyebolt or attachment point. Both essentially do the same job, bow shackles just look better.



QUICK TIPS

When using stainless steel turnbuckles always apply Anti Seize to the threads before tightening. If you don't you risk the threads seizing.



EYE NUT BOLTS & WELDED EYEBOLTS

Designed for going through poles or timber posts these high strength eyebolts will provide excellent support for your shade sail. Eye nut bolts are the high strength option suitable for larger shade sails.



WALL PLATES & CORNER BRACKETS



Wall plates are a functional way to spread the load of a shade sail. 150mm square in either stainless steel or galvanised steel. Corner brackets come in both external and internal configurations.

EYE BOLT WITH COLLAR & NUT

Eye collar nuts are used when placing the attachment point near the top of the shade sail pole. They only need to go through one face of the steel. Eyebolts can be drilled through the entire pole and are useful if you are fitting the shadesail mid-way down the pole.



OBLONG PLATES & DIAMOND EYEPADS



Both these fittings are an elegant way to finish off a shade sail corner when fitting to a timber or metal beam. Diamond eye pads have 4 points for attachment giving better strength when fitting to say a timber pergola.

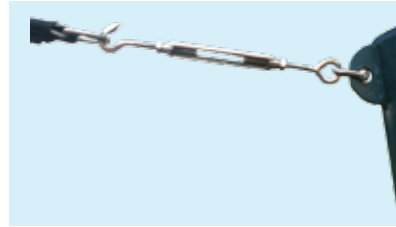
RAFTER & FASCIA BRACKETS

Using the right type of bracket makes mounting a shade sail to a roof line easy. Select from a wide range of options.





CYCLONIC CORNERS



Typically shade sails are tensioned with turnbuckles. The hook of the turnbuckle fits neatly over the D-ring of the shade sail. For the DIY'er this makes them easy to put up or take down.



UNDERSIDE
SHADE SIDE

TOP SIDE
SUN SIDE

QUALITY IN EVERY STITCH

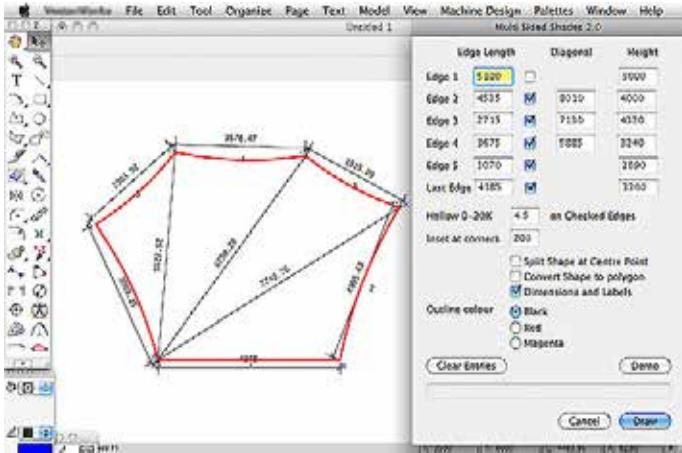
- ✓ Handsewn by highly experienced sewers
- ✓ ISO 9001 Quality Assurance
- ✓ Stainless Steel fittings
- ✓ Computer designed
- ✓ PTFE Sewing Thread



MANUFACTURING

PROUDLY AUSTRALIAN MADE

For a shade sail to stand the test of time it has to be manufactured to the very highest standards. Frontier shade sail are manufactured here in Australia to **ISO 9001 Quality Assurance** Standards.



The process starts after we receive your measurement. Firstly we draw your shade sail up in our CAD program to check that all the measurements are accurate. Once this is done, we send you the diagram showing you how your finished sail will look. You'll be able to see the take-offs, cutinary edge and other technical measurement that we've engineered in. This is always a good opportunity

for you to **call us and talk through** all the technical specifications. We love explaining how we make our sails and we know from experience that our customers always have lots of questions.

Your shade sail is checked and double checked before we even begin the manufacturing process. We use the latest AutoCAD software to plot the shape of each sail in 3D. Our technology allows us to cut the perimeter cables to the millimetre. This allows us to pre-swage the cables at each corner making it very easy for you to fit and tension your sail. Without computer design all this would be impossible.



Once this step is done and you've signed off, we completely re-draw the shade sail in AutoCAD. Typically shade sails are not flat and that's why your sail needs to be patterned in 3D. This is critical to the perfect form-fit of the final sail once it is actually suspended in the air. Back in the early days, shade sails used to be cut by hand. In our factory this is no longer the case. The 3D pattern is sent to the computer operated plotter-cutter and its accuracy far exceeds that which a human could match.



Once the fabric has been cut, all the shade sail components, (the marine grade stainless steel fittings, the fabric, the job-card with the customers exact specifications) are all sent to the sewing floor for final fabrication. All our shade sails are hand sewn by highly trained and skilled operators. Large double needle industrial sewing machines are needed for this type of work with the needles needing to penetrate up to 4 layers of fabric at certain points.



The thread is also critical to a quality shade sail and we use the highest quality PTFE sewing thread which is designed to outlast the actual fabric itself.

Once sewn your shade sail is laid out and thoroughly checked by an experienced supervisor who signs off a checklist of this specific shade sail. Only after this final check does your shade sail get carefully folded, bagged and boxed, ready for dispatch.

SUN SAFE SHADESAFE™

NO LONGER A LUXURY, IT'S A NECESSITY

The provision of UV Protective shade is no longer a luxury, it's a necessity. Consider that it on a warm spring day it can take less than 15 minutes for the first signs of sunburn to occur, we Australians need to take extra care to protect ourselves from the harsh UV rays of the sun.

According to Samantha Conias of The Australian College of Dermatologists advises "*Studies have shown that as little as six sunburns can double the risk of melanoma.*" This is why shade sails have become such a popular addition to all outdoor areas. Over pools, in schools, patios backyards and just about anywhere where people come together, shade sails provide a relatively low cost way to cover large areas with cool protective shade.

Benefits of Frontier Shade Sails include:

- Provide 95%+ UVR Block
- Custom design allows you to cover large, small or irregular shaped areas
- Easy DIY installation
- 100% Australian made Quality
- Wide range of contemporary colours

Shade sails first became popular in child care centres and schools. From there people started installing them over pools and decks. Today, anywhere people congregate in the Aussie outdoors screams out for a shade.

The current regulation for shade sails in child care centres stipulates that the UV protection needs to be a minimum of 94% UVR block. Frontier shade sails are made using the Australian made Synthesis Commercial 95. It exceeds the standard set out by the Cancer Council for high quality shade.



QUICK TIPS

For all the information you'll need check out our book *DIY Shade sails made easy*. It has everything you'll need to know, from planning to engineering details.



Insist on a shade sail which provides a minimum of 94% UVR block.

COMMON MISTAKES

WHICH WE DON'T WANT YOU TO MAKE



The bottom line is this; installing a shadesail isn't the easiest thing in the world, but if you follow some basic principles it doesn't have to be hard. In fact it can be a lot of fun and a great sense of achievement when it's done. Here are some things to watch out for. Where ever possible avoid installing triangular shadesails. Why? Because they give very little shade. You see, shade sails are made with curved edges AND triangular shade sails accentuate that curvature. The end result is something we commonly refer to in the industry as industry is the G-string effect.



Get the foundations right the first time. This is one of THE most common mistakes for the DIY shadesail installer. They simply don't dig the holes deep enough and in the first strong wind the posts move and the whole job is ruined. Bottom line, deep holes, strong poles and plenty of concrete.

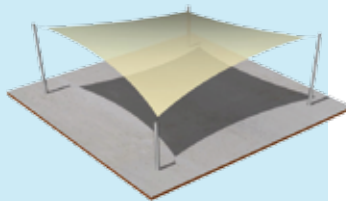
Allow for the take-offs. This simply means that, shadesails need to be tensioned at the corners and you have to allow for this. It's a common mistake people make, they buy a 5m shade sail and then put the posts 5m apart. What they end up with is something like this. A saggy sail and you don't want that.

PLAN for the curvature. Shade sails are made with curved edges which erode your coverage. The best tip I can give you here is to say, plan your sail to be as symmetrical as possible. This sail works well, its about 10 x 10 metres. This sail doesn't, its 8 x 4 metre or twice as long as it is wide and that accentuates the curvature



QUICKTIPS

A flat sail is a poor design. It will be hard to tension, look unprofessional, collect debris and in a hail storm may collect a large quantity of hail putting pressure on attachment points. Always design your shadesail with at least one point higher than the rest. A flat sail will fail.



They may look great, but a word of warning. Long narrow sails give very little shade. "The G-string effect."

Something we learned long ago is that the first place a shade sail will fail is the stitching. That's why we now manufacture all our shade sails with the highest quality PTFE sewing thread available. PTFE (Polytetrafluoroethylene) sewing thread is extremely strong and guaranteed to last for the life of the shade sail itself. It maintains its strength under the high stress loads a shade sail must endure over its lifetime and will not deteriorate, break or burst even in the harsh Aussie extremes of temperature.



PTFE Thread remains flexible and strong in extremes of hot and cold. It won't absorb water and it resists acid rain, salt water, pollution, snow and freezing.

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Are Frontier Shade sails waterproof?

Not really. Synthesis C95 is a porous material which allows heat to rise but blocks UV Radiation. Surprisingly though, due to the very tight knit of the fabric much of the rain simply runs off the fabric. The more acute the angle of the shade sail, the greater the water run-off.

What warranty do shadesails come with?

The fabric come a 10 year pro rata UV Degradation warranty. Shade Australia extends a 5 Year Workmanship warranty.

Is it dark under a shadesail?

Surprisingly not. Even with darker coloured fabrics, light is still able to enter. It is the UV that is blocked.

Can Frontier Shadesails withstand strong winds?

Yes. We manufacture our shade sails with stainless steel cables sewn into the hems. We use a proprietary system for the corners which we've called Cyclonic Corners. They have multiple layers of fabric and extra stitching making them very strong. The cables in each corner are mechanically swagged off again making very strong. On shade sails where the customer tells us the sail is in a high wind area, such as a beach front location, we increase the internal size of the cable up to 6mm.

How hard is it to fit a shade sail myself?

We always say the hardest part of a shade sail project is digging the holes. Fitting the sail is the easy (and fun bit). Of course, fitting a shade sail does take a degree of effort and experience. We do everything we can to make the job as easy as possible.

Do I need council permission to install a shade sail?

Maybe. It seems that different councils have different regulations and we always recommend that you check. Often times, a shade sail might impede a neighbours view and this is where a dispute can occur. Shade sails can also be considered as removable structures which means that in some jurisdictions, council approval doesn't apply.

How big do my poles need to be?

This is something that many customers underestimate. The under specify the poles and when they come to fit their sail, the poles flex inwards. Shade Australia has detailed engineering information about the depth of holes and the size and specifications of poles and are able to make this information available to our customers.

A word about waterproof shade sails.

We recommend **against** doing a DIY waterproof shadesails. The main reasons are that;

1. Unless you have adequate fall on the sail, it will fill with water and cause serious damage to itself or the supporting structure.
2. Waterproof sails require much stronger points of attachment and should be not be installed without site specific engineer certification.
3. They are considerably more expensive than shade cloth sails and the potential for things to go wrong is much higher.
4. Unlike shade cloth sails, water proof sails do not allow wind to blow through therefore, they act in a similar fashion to a sail on a yacht and the wind loads they place on supporting structures can be immense.

NOTE: Frontier shade sails made from Synthesis C95 are surprisingly water resistant. This is due to the very tight knit of the fabric and when set on a 15 degree angle much of the water will run off.



We love talking to customers. Call us today on
1800 155 233 or email us at info@shadeaustralia.com.au