



Technical Design Guide

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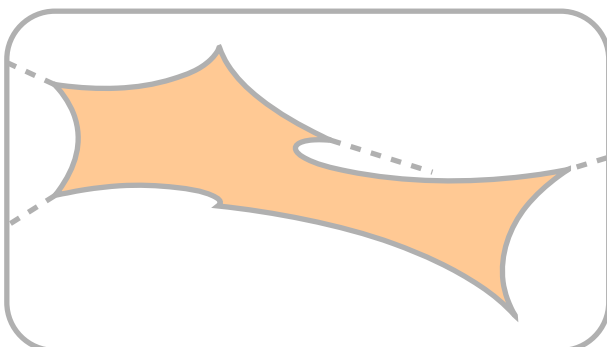
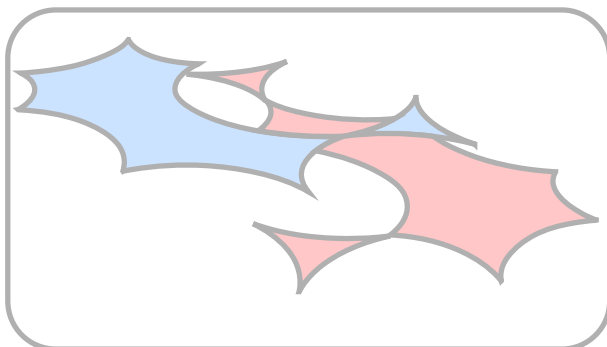
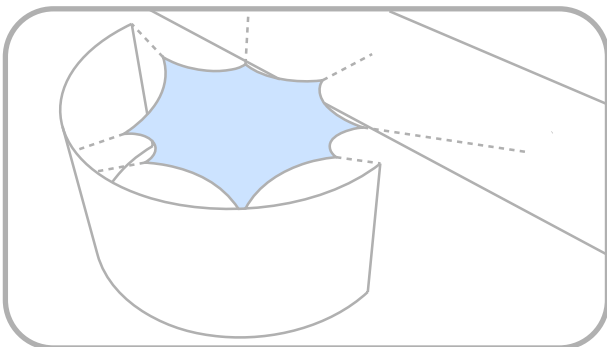
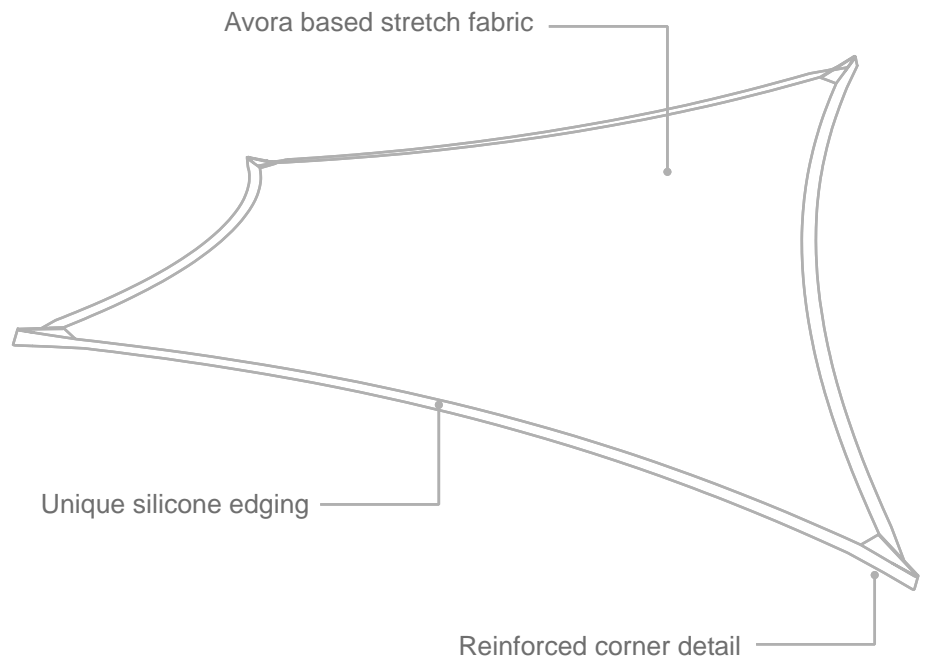
How does it work?

Freeform is a versatile new internal sail system that can be used to create flat or 3-dimensional forms. Made from an Avora based IFR fabric, the sails have silicon tension edges and can stretch by up to 30%. Freeform is designed and manufactured by tensARC.

Freeform is available in a range of stock sizes, colours and custom shapes can be made to order.

Installation is simple and does not require any specialist tools. Full instructions and all fixings are included with each sail. A design and installation service is also available, if required.

The sails are also quick and simple to remove and can be cleaned in a domestic washing machine.



Where to use freeform:

Freeform sails are a versatile interior design tool that can be used to transform a space, create a focal point, diffuse light and remove solar glare.

Transform a space:

Groups of sails can be used to lower the height of a ceiling, screen service ducts or create a modern contemporary feel adding interest to large flat surfaces. Used vertically they can also create visual partitions or to provide screening or privacy. Small groups can be used to create a more intimate space within a larger area.

Create a focal point:

Individual sails or small groups form an immediate reference or focal point. Lighting and colour can also be used to create dramatic high impact sculptural forms.

Diffuse light :

Reflecting or diffusing, natural or artificial the use of light adds a 4th dimension to the sails. The changing intensity of natural light or a subtle change of colour in artificial light adds an additional dynamic to the form.

Improve solar control :

Carefully positioned sails can reduce solar glare from a specific location, like a reception desk. Larger groups of sails can be used to reduce heat gain, excessive light levels and improve total UV protection.

Design Considerations:

At the outset of a project you will want to consider the following:

Coverage:

Single sails and small groups provide a focal point and can be positioned to deal with a specific design requirement. More general screening and solar control can require coverage of 50-90% of an area which may require the use of overlapping sails.

Size :

What size of area are you trying to cover? Will one sail be sufficient or would a combination of sails be more interesting? If you want to create custom sails call us to talk through your ideas.

Colour :

Are you going to be using white sails or do you want to use a coloured fabric? If you want to use colour please contact us to confirm lead times.

Printing :

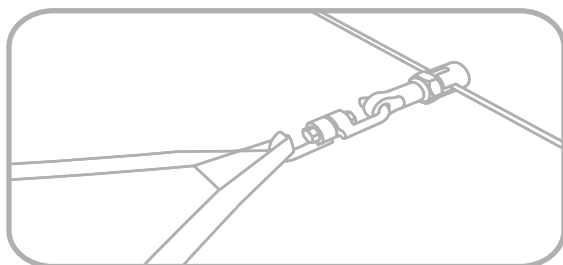
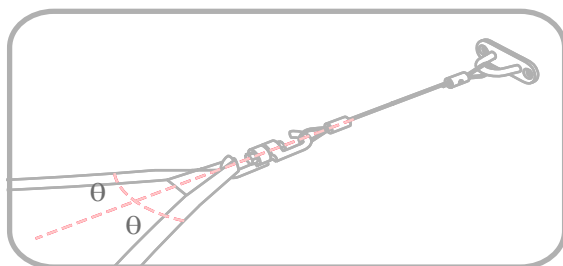
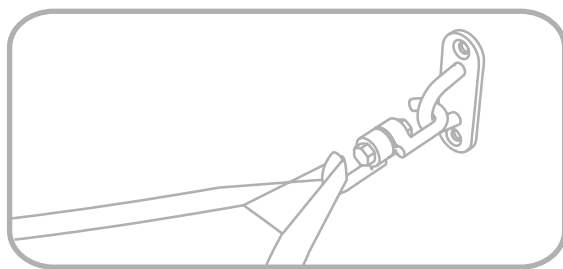
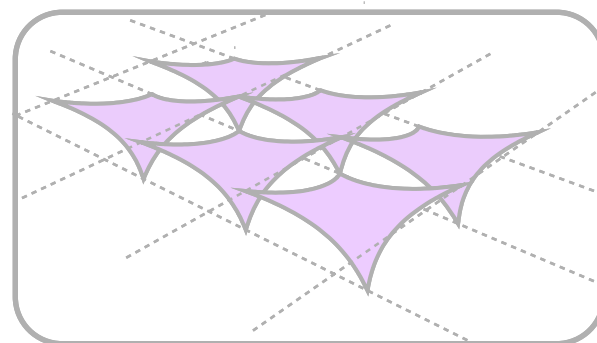
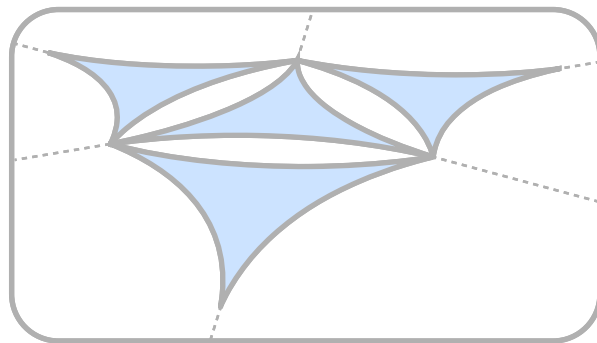
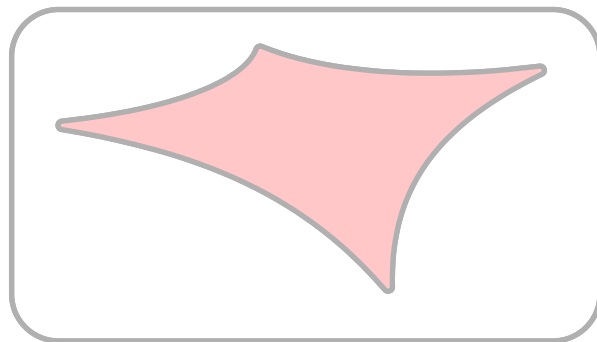
Do you want to print company logos or other graphics on to the sail? We will need high resolution images to achieve the best results. Contact us for specific advice.

Fixing:

Where will you be fixing the sail and will you need to add cables? You will need something fairly solid to connect to but our range of fixing options should cover most installation requirements.

Think 3D :

Where possible introduce shape to the sail - freeform is designed to be stretched and is at its best when sculpted into a dynamic 3 dimensional shape.



Fixing Options:

Direct fixing:

The swivel connects directly to an eye plate fixed to the supporting structure. Ideal if your sail fits within the available space and you want maximum coverage.

Typical Load on fixing : 30kg

Remote fixing:

A 1.5mm diameter stainless steel wire (leader) is used to extend the fixing point to a suitable location. Used when suspending a sail within a space or when a suitable fixing point is not available. The leaders are easily adjusted and locked off.

Typical Load on fixing: 30 kg

Transverse Cables:

The cable support system is used for groups of sails to replace multiple leaders or to create a fixing point where none exists (e.g. between a floor and ceiling). Made from 3mm stainless steel wire you can connect at any point along its length.

Typical Load on transverse cable fixing: 200kg

Technical Specifications :

Fabric construction

90% Avora Plus and 10% Lycra

Colours

Freeform is available in white, eco white, natural, black and 32 colours. Indicative colour swatches are shown on the right.

Fire Rating

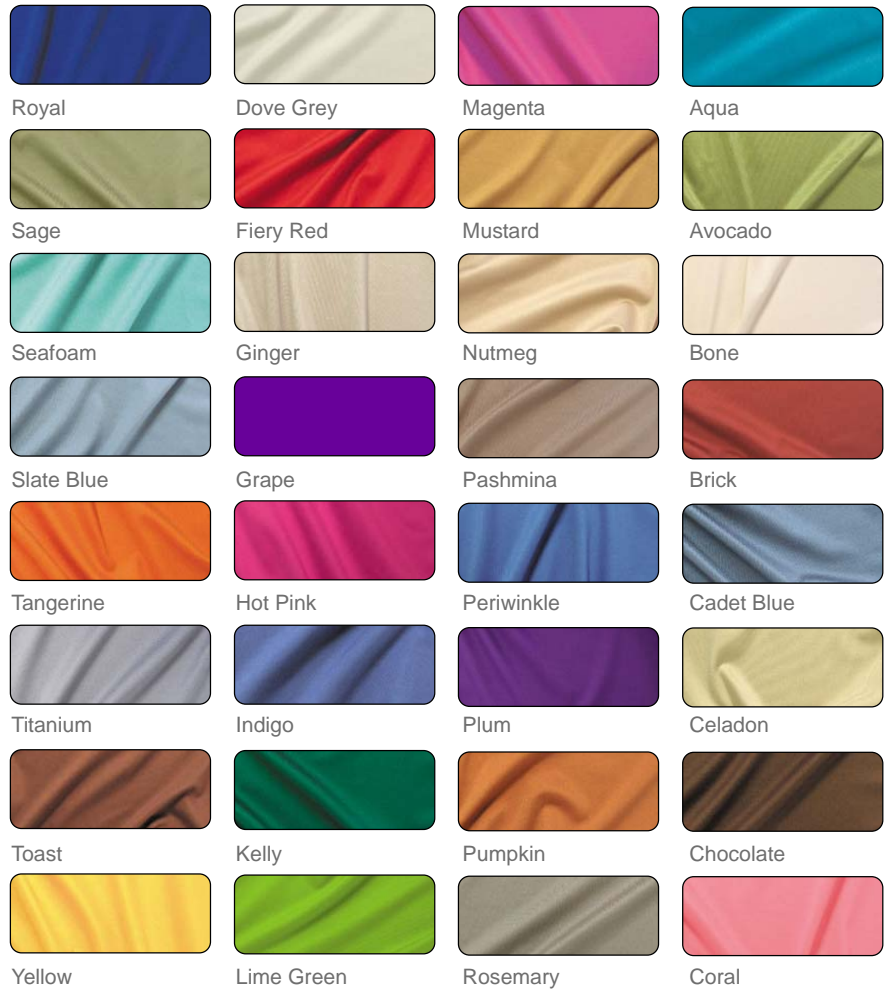
The base fabric is inherently flame retardant, this is permanent and will not wash or wear out. It has been tested to the following standards;

BS 5987 : Pt 2 1980 (UK)
B1 (Germany and Europe)
NFPA 701 Small Scale (USA)

Screening

The screening efficiency for visible light increases with the intensity of the source and is also affected by sail stretch and orientation. All of the levels indicated are based on average values recorded for white sails.

UVA	85%
UVB	95%
Visible light	40 - 80%



Graphics and Printing:

Graphics can be printed onto the sails using dye sublimation printing, the colours are vibrant and the images sharp. This is ideal for sales promotions, product launches, company branding etc. We can print up to 3m wide and any length. For more information and help with printing please contact a member of our design team as early as possible and they will be happy to help and guide you.

Features and Benefits



Solar control - will reduce heat, light and UV.



Light diffusing - can be back-lit or used as a projection screen for dramatic lighting effects. Will soften glare and create ambience.



Highly creative - use to define space or as focal point feature.



Versatile - has a stretch of up to 30%, comes in a large range of custom colours and is fully printable.



High quality - engineered and fabricated in the UK. Comes with full technical and design support.



Inherently fire retardant - meets BS 5867 : Part 2 : 1980.



Machine washable - for minimum maintenance.