

## 420 Slot Gaskets

For some reason, 420 sailors seem to go through slot gaskets, but if you apply them well and look after them, they can last many seasons.

Below is some info on the different types, some info on how to apply them and how to look after them to keep your boat fast – sailing with your slot gasket falling off is sooooo slow due the additional drag and the water coming up the centreboard case!

### Types

There are essentially two types of slot gasket used on 420's. Both have their Pros and Cons.

#### Type 1 - Hawk Slot Strip

This widely available slot gasket material can be purchased from most marine shops in the length and width you require, meaning you don't have to buy an entire roll. 420's typically use 2x separate lengths made from 50mm wide Hawk Slot Strip.

Hawk Slot Strip is made from bonded layers of Dacron Sail cloth and a Polyester film.

<http://hawkmarineproducts.com/slot.htm>

This slot gasket material must be applied with glue and cannot be used with double sided tape or it will quickly fall off!

We have a great video uploaded by Jonny McGovern of Richard Wagstaff (ex Winder Boats) gluing Hawk Slot Strip to a 420, but it also covers other key things like cutting, overlaps etc. This is a highly recommended watch if you are using either method – you will need to register for a free Vimeo account to view.

<https://vimeo.com/121089334>

Richard recommends using Thixofix contact adhesive for sticking on your slot gasket. A 250ml tin can be purchased online for just £8.

<https://alpha-adhesives.co.uk/products/thixofix/>

#### **Pros**

Typically these last a long time

Produce a good clean finish

One of the most widely used slot gasket products

#### **Cons**

Take slightly longer to apply and ideally needs 24 hours of drying time. Overnight can be fine if not too cold.

Can't be done quickly in a dinghy park if you want to sail the same day

## Type 2 - Mylar and Double-sided tape

Popular in the 420 and 470 classes, a Mylar material applied to the boat using double-sided tape.

Mylar is often used for making templates or stencils and the best place I have found to buy it is:

<https://www.idealstencils.co.uk/>

For a durable slot gasket we've been using 250 Micron and you need to purchase 2 meters of this as a 420 slot gasket is just over 1 meter in length. A 300mm x 2 meter roll will do 2x slot gaskets (4x strips) for just over £10. Thickness less than 250 Microns will work too.

<https://www.idealstencils.co.uk/collections/mylar-rolls-per-mtr/products/250-micron-mylar-sold-per-meter>

Double Sided Tape – I've done quite a bit of research on the best type of tape to buy to stick Mylar to boats and the best in my opinion is the below 3M tape due to its high 90° Peel adhesion characteristics:

3M GPH-060GF VHB Grey Foam Tape 19mm (wide) x 0.6mm (thickness) x 33m (roll length)

This can be purchased from a few places, including Viking Tapes:

<https://www.vikingtapes.co.uk/products/3m-vhb-gph-060gf-high-temperature-tape-25mm-x-0-6mm?variant=33106448678975>

Viking tapes do a great range should you wish to use something else or a different width or thickness. *Purchasing the above tape but in a 12mm width is better for some makes of 420 e.g Nautivela – see below.*

Applying Mylar strips with tape is pretty easy and there is a great video that MacKay boats have done on the method:

<https://www.youtube.com/watch?v=fN5sQxyYORQ>

### **Pros**

Can be done quickly in a dinghy park and you can go sailing straight away.

Less messy than using glue

### **Cons**

Taped on Mylar slot gaskets need replacing more often than glued on Hawk Slot Strip in my experience.

## **Application and cutting tips**

If you need to make a slot gasket narrower to fit your boat by cutting it down, try to ensure that you are cutting an edge that can become the outer edge. This means that a nice machine-cut straight edge is in contact with the centreboard as it goes up and down. An imperfection in your cutting can catch on the trailing edge of the board leading to a tear.

Ensure that the surfaces of the hull are clear and dry, with any remnants of old tape or glue fully removed. This sometimes needs some gentle scraping – a blunt chisel is good here.

Rub acetone or thinners over the hull and the gasket before taping on, or before you apply the glue if using.

If you're using Hawk Slot Strip you must apply textured surface down. Give the part of the strip that's receiving the contact adhesive glue a little sand with some coarse sandpaper to make this a little 'fluffy' to help the glue stick.

Ideally, it's a two person job and I would say two people are essential for the glue method with one person holding the glued strip and another sticking it down.

The MacKay boats video (at 3min 30secs) show how to finish the trailing edge of a 420 slot gasket. These tapered cuts allow water to escape out of the back of the centreboard case and can be used on both Hawk Slot Strip and Mylar gaskets.

### Cover tape

Once they have applied a new slot gasket, some people like to add 'cover tape' along the length of the slot gasket on either side. This is applied so it's half on the slot gasket and half on the hull itself. Cover tape is very thin, like parcel tape. Lots of people don't bother with this, but there is a school of thought that this provides a cleaner finish, resulting in less drag.

A good tape for this purpose is Tesa Tape 4124 which is a premium packing tape – please seek out white to match your hull rather than brown!

### Front patch

Again, a preference thing but some people add a self-adhesive patch to the front of the slot gasket to improve the hydrodynamics. Typically, this is 50% over the slot gasket and 50% on the hull directly in front of the slot.

The above Tesa tape could be used here, but people also use self-adhesive Dacron patches. P&B sell round patches that are ideal if you cut these into a Pac-Man shape and apply with the cut-out V facing aft. The 165mm are a good size and most people go for white to match their hull.

<https://www.pinbax.com/p-b-dacron-adhesive-patch-each-p11674>

## Dimensions

### Dimensions

You will need to measure your boat to get the exact measurements needed, as different boats brands are different. Also measure the width at different points down the hull as some makes can vary e.g. Ziegelmayer

420 slot gaskets are mostly overlapped with one strip slightly overlapping the other. I typically make each strip slightly different in width as this helps them fold down nicely. The thinner side (nearly!) always goes down first before the wider side when the board is being retracted. If each side was the same width, then they can sometime fight to go down first and can get crossed which can create damage – this is discussed in the Vimeo video above

The below dimensions are here as a guide, but please measure your own boat before cutting

### **Mackay hull**

Each strip is approx 121.5cm long. Buy more, you can always cut down when you've held up to your boat. I make the 'lower' strip 38mm wide and the 'higher' strip 42mm wide. This gives a 3-5mm overlap, just off centre.

If using Mylar and double-side tape method then a 19mm width tape works well

### **Nautivela hull**

The strips needed for a Nautivela hull are narrower than a Mackay, as a result 12mm wide double-sided 3M tape works well if you're using the Mylar and double-side tape method.

## Care and maintenance

Most slot gaskets become damaged during launching and recovery. Always try to float the boat onto its trolley rather than dragging.

If a slot gasket become folded, then creases can be somewhat removed by gently heating with a hair dryer and bending back.

## Further info

Whilst not a overlapped 420 slot gasket, the below video showing the application of a single split slot gasket on an RS200 is a useful watch too:

<https://youtu.be/WPFf4KGEXRI?si=BZtF2lgx3nMHoVa>

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