



Apply your jointing plane blade to the Micro Finishing Film and you can forget trying to perform figure of eights, says Marc Fish

Has the meaning of sharpening been changed forever? Have we found the Holy Grail? I think that we might have done.

I first came across 3M's Micro Finishing Film system while researching woodworking in America and then came across it again visiting James Ryan at the Barnsley Workshop. James said they had been using it for a while and were suitably impressed.

What's more, while it used to be available only in the USA, notably online at www.toolsforworkingwood.com, it can now be obtained from Workshop Heaven here in the UK, at www.workshopheaven.com

How to use...

Sharpening film

PHOTOGRAPHS BY MARC FISH

Marc uses the film to remove a burr

System description

The product is similar to wet-and-dry abrasive sheets but with a sticky back – technically speaking it is a pressure-sensitive adhesive (PSA).

Relatively new to the sphere of blade sharpening, it was developed for the engineering industry so the tolerances have to be precise. It is consistently flat and the grit particles are carefully graded and electrostatically orientated.

The film is available in various grits and I chose four sizes, see *Grade attributes over page*, missing out the 40-micron which is equivalent to around a 400-grit waterstone. This is used for removing nicks in blades or heavy back flattening.

Workshop Heaven stocks aluminium oxide crystal sheets plus sheets of float glass designed to be used as three 1/3 sheets at a time, in 100, 60, 30 and 5-micron sizes, but in fact 3M's whole range is pretty substantial.

The film comes in suitably large 215 x 280mm sheets. Divided by three, the sheets are enough to fit a No.8 jointing plane blade.



The different grits

How to use sharpening film



The general layout

Simply stick the film onto your substrate. I purchased from my local glaziers a piece of 10mm plate glass. This is NOT toughened or laminated as this can warp the glass. Ask the glaziers to polish or bevel the edges as this will stop you cutting your hands.

The glass is then secured to a piece of MDF to protect it. I stuck all four grits on one piece of glass in sequence, working

left to right, then spun the glass round and again left to right.

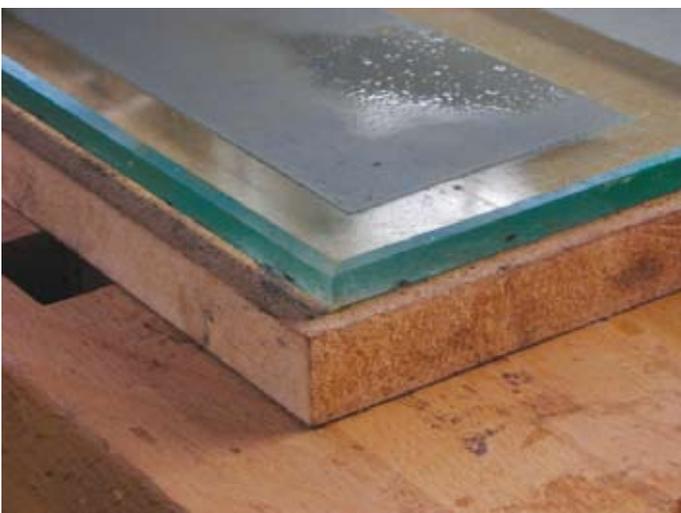
The sharpening film will work with either water or oil as a lubricant; I found oil to be better as there was less juddering and less ripping of the film. The blade only needs a few strokes on each grit so don't get carried away.

Check to see if you have raised a burr on the back of the blade and if you have

then go on to the next grit, working on the back then the front.

After going through all grits there is no need to stop the blade on leather – in fact I have a nagging thought that this might just dull the sharpened blade.

For everyday work you could skip the last grade of film, but when it only needs a few strokes why not have super sharp even on everyday work? Go on, treat yourself.



Detail of edge of glass and paper strip



Applying camellia oil with spray

Freehand honing on the bevel

These sharpening films are as flat as the substrate you stick them to and never need flattening

Set up cost is low: I bought five sheets of each of the four grits and the total cost including postage to the UK was £40. The equivalent waterstone set could cost more than £200

Any size of blade can be fitted on the film – when I teach students they all struggle with the figure-of-eight pattern using the whole stone. With this system the blade can just be drawn back and registered on its own bevel or attached to a honing guide

Some of the A2 cryo blades are very hard and can take considerable time getting flat and this sharpening method seems to alleviate the problem

I also noticed that my Lie-Nielsen blades were shinier than when sharpened with waterstones, indicating a sharper blade as well as looking good

Sharpening films cut quickly

They put on a sharper edge than other methods

No waterstone containers lying around

No flattening required

Cheaper start-up cost

Easier to use

Initial cost is lower than the waterstone equivalent, but long-term costs in a commercial workshop are probably higher BUT considerable saving in time with no flattening of the stone or inaccuracy due to misshapen stones

Very fine grades have a tendency to rip – a little care does tend to cut down on this but it is still evident

In use with honing guide



Freehand-honing a plane iron

Grade attributes
15-micron silicon carbide (similar to a 1,200-grit waterstone)
5-micron silicon carbide (similar to a 5,000-grit waterstone)
1-micron chrome oxide (similar to a 6,000-grit waterstone)
0.3-micron aluminium oxide (similar to a 12,000-grit waterstone)

Traditional stones

Most of us have tried various sharpening methods and stones. Some we like,

some we don't. The biggest problem for us all is flatness. Oil stones stay flat for a reasonable length of time but are hard to flatten. Waterstones are renowned for going out of shape very quickly but are easy to flatten. Diamond and ceramic stones are rarely flat when you buy them and can't be flattened.

Conclusion

This is a very exciting development; I have made the change and will not go back to waterstones. I can see these really catching on. What more can I say except give them a try. **F&C**