Paste vs Spray
Posted by BrentlyWhite - 23 Jan 2013 11:08

Ok, I dont even have my WE PP1 yet and I am looking to go down the rabbit hole even more. As the next progression from the PP1, I would like to go to 1 and .5 micron. But, do I go with the paste or spray? Which would you guys recommend? Why?

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Re: Paste vs Spray
Posted by mark76 - 23 Jan 2013 14:25

It depends on what you want. If you still want to have maximal abrasive power, go for the sprays. If you want a smooth finish and a mirror edge, go for the pastes.

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Re: Paste vs Spray
Posted by Geocyclist - 23 Jan 2013 20:40

Thanks for asking this question. I have been meaning to ask the exact same thing, what's the difference between 1 micron spray and 1 micron paste?

Does the binder or "paste" in the paste have any impact?

What is the liquid component of spray?

How long does a spray application work? I have heard paste lasts from 20 to 100 knives.

While on this topic what is the preferred substrate for the sprays? leather, nano, balsa?

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Re: Paste vs Spray
Posted by ApexGS - 23 Jan 2013 22:01

This should be a really informative discussion, I know I've picked Clay's brain a few times regarding

pastes and have considered the sprays as well for the future. The pattern I've seen generally speaking is that the very fine levels of abrasive under 0.5um or so tend to be used more with sprays on kangaroo leather or nanocloth, while the 1um and above (again speaking very generally) I see most often in paste form on cow or horse leather. There have been a few discussions on strop materials where some of the very knowledgeable folks including Clay mentioned most materials work very well on almost any size compound, though each material has its caveats and techniques for use.

It's been a while since I poked Clay about it but if I recall the pastes tend to last in the neighborhood of 20-30 as a rule of thumb before considering recharging them. That's just a guideline though because how you use the strop as well as what your personal metric for effective polishing is both impact when you'll find it not doing the job well enough. This reminds me to recharge my 5/3.5um set next time I hop on the WEPS!

As far as sprays go they apparently last about half as long as pastes, once again as a rule of thumb. Folks with more experience on the sprays and other strop materials can fill in the real details I'm sure

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Re: Paste vs Spray

Posted by mark76 - 24 Jan 2013 00:54

There is a lot of information on diamond sprays and pastes on the Forum as well else elswhere on the Net.

Some links:

- A sharpening progression with diamond sprays with some nice photographs by Clay: wickededgeusa.com/index.php?option=com_k...d=4555&Itemid=63
- A really long thread on both diamond pastes and diamonds sprays with edge photographs: www.wickededgeusa.com/index.php?option=com_kunena&func=view&catid=5&id=2399&limit=10&limitstart=90&Itemid=63

. The most amazing edge photograph I've seen was produced by Clay using fine compound on a 'roo strop:
www.wickededgeusa.com/index.php?option=c...art=90&Itemid=63

- I wrote a number of blog posts on the Wicked Edge pastes: moleculepolishing.wordpress.com/category/stropping/
- The Wiki also provides interesting links to similar topics: wickededgeusa.com/wiki/index.php?title=W...d_Edge_New_User_Info

Happy reading!

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Re: Paste vs Spray
Posted by Geocyclist - 25 Jan 2013 20:35

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Mark,

Thanks for pulling all this tougher. I read all of you blog and this is great information/photos for each paste grit.

In the end I don't know if I have 500 strokes in me, especially for each grit. But it does show (Clay's photos) how you make progress with more strokes.

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Re: Paste vs Spray
Posted by mark76 - 26 Jan 2013 03:00

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No, no, no!
Please don't do 500 strokes per side! That was only for testing purposes. I am a stubborn guy and wanted to know how far I could go before I didn't see any improvement anymore.

That said, if I use the pastes, I usually strop a bit differently than most other people. Most people use very light pressure and don't do many strokes. I usually do about 50-100 strokes per side and use moderate pressure. I've seen with my own microscope that it works

Thanks for the kind words!

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Re: Paste vs Spray
Posted by leomitch - 26 Jan 2013 08:42

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Hee,hee,heee! 500 strokes eh Mark! Glad it was you! My poor old arm would have seized up like an unlubricated piston!ROTFLMAO! Even for the sake of science, I would never had made it to the end of the experiment!!

Leo!

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Re: Paste vs Spray

Posted by PhilipPasteur - 26 Jan 2013 17:16

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Let me throw out a few things...

I guess we should say what pastes and what sprays we are tallking abut before comparing them.

In general the sprays from HA or Ken Schwartz have a higer concentration of diamond in them than the WEPS pastes. There are othe pastes around. I have been using DMT pastes and bought some on Ebya too. I don't think, from my results, that any of them have as high a dimond concenatration as the sprays mentioned above (I have seen no published specs for concentration on any of them). This means that you get faster results and *potentially* more *micro* scratches when using the sprays. Maybe this is why Mark said:

" If you still want to have maximal abrasive power, go for the sprays. If you want a smooth finish and a mirror edge, go for the pastes. "

Now I said maybe more **micro scratches** with the sprays. I meant that you need a **micro** scope to see them.

Visually you will get every bit as much a mirror vevel and edge refinement with the sprays as with the pastes. I say this having used both on lots of different blades!

Even with the 400X Veho, the sort of scratches caused by the 1 and 0.5 micron sprays will be at or below the resolution limts of the camera. In other words the smoothness of the finish will be indistinguishable visually, but you will get where you want to be considerably faster with the sprays.

Geocyclist asked about the carrier. I have both oil based and water based sprays. I am pretty sure that HA has a detergent in water for the carrier, Ken uses distilled water (IIRC), a few other brands that I bought use a light oil. In all cases the carrier either evaporates or if oil is absorbed into the leather. This leaves primarily the abrasive on the surface.

Sprays make it much easier to get a good thin even coat of abrasive on the media. There is not as much guessing or diluting paste and redistributing it. You can see what you have on the substrate and easily add where you need to.

I find that an application of the spray lasts pretty close to the same number of blades as does the paste. This is going by memory, as I don't document this. I just recharge when it feels right!

Of course the sprays are typically more expensive, but you get quite a few more applications from the 2 oz bottle of spray than the syringes. Just guess here, but my gut tells me that the cost per application is pretty close, but in the long run the sprays are cheaper to use. I have had 2 oz bottles of the 1 and 0.5 micron HA spray for a couple of years, 40% left, and I have done a bunch of knives. I have also used the same two bottles to coat a couple of 3" by 12" bench strops, more than once. I went through my first two syringes of the WEPS paste (5/3.5) in about 6 months. Yes I put way too much on the first time. I am sure it would last longer if I knew then what I know now.

I use the pastes down to the 3 or 3.5 micron level and the sprays below that.

I have some Ken Schwartz 1, 0.5 and 0.1 micron CBN paste. I got it for the leather belts on my belt grinder. At one point I tried it on leather WEPS strops. I was not that thrilled with the mess , nor did I like the results as much as with the sprays. It, even though maybe a bit thinner than the WEPS pastes, was a pain to apply evenly. Granted, Ken said he formulated these for belts and has material in them to help condition the leather in that application. But I just had to try them with the WEPS.

If you want to go finer than the 0.5 micron level, I have not seen any pastes that fine (other than that one from Ken I metioned above at 0.1, but not meant for what we are doing with the WEPS), you need to go to sprays. I have the sprays down to 0.025 microns. I told Ken when I bought them that I really doubted I would be doing anything but wasting time at that grit level (but I just had to know:)). Well with the 0.025 on nanocloth, and whisper light strokes, it usually makes the difference in passing the HHT.

So...

Bottom line, my recommendation is to buy the sprays at the 1 and 0.5 levels rather than the paste.

Phil

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