Micro-Fine Ceramics
Posted by wickededge - 21 Jun 2012 15:57

We've recently released our new Micro-Fine ceramics. I've been doing a lot of testing with them and really enjoying the results. The images show the scratch patterns well but before showing them, I want to detail the process I used to assure that we were only seeing the scratches from the grit in question. I wanted a blank slate so I work on this blade until it was super polished down to .25um. I cycled through the regular grits and then finished with the .25um diamond spray on kangaroo leather strops. Once I'd gotten the bevels mostly scratch free, I had at 'em with each of the two grits. Below are the results:

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Re: Micro-Fine Ceramics
Posted by wickededge - 25 Jun 2012 14:24

JimMitchell wrote:

Thanks Clay. You guys are great and the customer service you provide is second to none so good luck!

In the meantime, I'll be going from the 1000 grit diamond stones to the 1.4 / .6 micro-fine ceramics (15,000 / 30,000) and then on to the stops? I know there is a large gap between the 1000 grit diamond stones and the micro-fine ceramics so I'll definitely be waiting to hear what you decide on the 1200 / 1600 ceramics. If you decide not to re-order those ceramics, could you please recommend the best choice for me to fill that gap?

Thanks again,

Jim

Jim,

I've had great luck with the new micro-fine ceramics immediately after the 1000 grit stone, so I think you're safe to just dive right in. I'm pretty surprised by how aggressive the brown stone is. The actual grit is hard to calculate since the supplier doesn't use standard scales and instead uses RA or Roughness Average. The 1.4um/.6um rating was provided by their engineers, but I want to do my own analysis so I've got a 2000x metallurgic microscope on order, it comes in Wednesday. Once it arrives and I get it set up, I'll be taking measurements of the scratches and hopefully be able to determine the actual grit more effectively. Then I will do the same for every grit we offer and any others I can get my hands on. Then we'll update our table accordingly, though maybe I should first figure out how to add more hours into the

day...

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Re: Micro-Fine Ceramics
Posted by mark76 - 25 Jun 2012 15:35

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wickededge wrote:

I want to do my own analysis so I've got a 2000x metallurgic microscope on order, it comes in Wednesday. Once it arrives and I get it set up, I'll be taking measurements of the scratches and hopefully be able to determine the actual grit more effectively.

That is utterly, utterly cool, Clay! Wow! 2000x!

Then I will do the same for every grit we offer and any others I can get my hands on. Then we'll update our table accordingly, though maybe I should first figure out how to add more hours into the day...

That sounds as if a scratch size comparison chart (moleculepolishing.wordpress.com/2012/04/...-wicked-edge-pastes/) might finally come true! The first *objective* comparison of stones based on their *effects* rather than on the basis of what people (say they) put in a stone.

Woohoo!

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Re: Micro-Fine Ceramics
Posted by holymolar - 30 Jun 2012 07:42

Does anyone have experience or thoughts about the following?

Since the new 1.4 / .6 micro-fine ceramics are 15,000 / 30,000, does that make the Chosera stones (that only go to 10,000) no longer necessary? Or would using the 10,000 Chosera before (or after) the Micro-Fine Ceramics but before the strops, make sense?

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Re: Micro-Fine Ceramics
Posted by wickededge - 30 Jun 2012 08:19

Hey guys. How the micro-fine ceramics fit into the mix is creating a lot of questions, with me as well. The stone manufacturer uses a different grit rating than what we're used to (the many we're used to) call RA, or roughness average. They sent me the specs for the grit early on as 1.4um and .6, but I have doubts that we can really rate it that fine. My new 2000x microscope came this week and my plan is to measure the scratch size that the stones leave and rate them accordingly. The only issue I'm bumping up against is needing a NIST traceable micro-ruler to calibrate the scope. Once I've gotten a chance to rate the stones, I'll post them and we'll all have a lot more clarity on the best way to include them in our progressions. So far, I've been having great success using them after the Superfine ceramics and before the strops. The brown stone is also surprisingly aggressive and I've had success using it after the 600# and/or 1000# diamonds. I haven't done much microscopy to see how refined the edge looks, but the knife is cutting like a demon. I also haven't done any retention tests so I don't know how that kind of edge will hold up, but I suspect it will hold up well. I'm taking my kit up to the mountains this weekend and plan on sharpening the knives up there with just the micro-fines and seeing how they perform in the kitchen. I think they're going to give the perfect edge for meat slicing, but whatever happens, I'll be sure to report my results.

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Re: Micro-Fine Ceramics
Posted by PhilipPasteur - 30 Jun 2012 12:27

Clay,

What size graduations would you need?

www.schlenkerenterprises.com/21-whittam_precision_scales.htm

Go to 0.1 mm with accuracy to 0.001 mm. They do custom work and claim to be able to save "hundreds" on their products compared to others. They issue a calibration cert if required.

Just not sure what size intervals that you need to calibrate the scope.

Then I found this one for $572.00 without the traceability cert.

www.2spi.com/catalog/magnifiers/magnific...-standard-geller.php

Looks likE it might work. "The MRS-3 allows calibration of magnifications from about 10X to 50,000X"

They have options for the basic price like a retainer, and certs in X+Y or X+Y+Z dimensions.

It seems like you would not need the cert unless you want to go for an ISO lab or production certification for your shop.

Still sounds darn expensive for a ruler

www.agarscientific.com/catalogue/action_...11&jumpto=03LMSM

Looks like it may work, but you need to request a quote. They have all kinds of neat stuff including sample slides of all kinds of different materials. I will attach the catalog.

I could not attach it, so here is the link:

www.agarscientific.com/pages/catalogue-8...ate_17_06_10_web.pdf

Phil

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Re: Micro-Fine Ceramics

Posted by wickededge - 30 Jun 2012 19:22

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Thank you Phil, I really appreciate it. I'm researching now.

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