

Experiments with a heated roller for applying klister

The idea of using a heated roller for applying klister came after watching an excellent video on kick wax and klister application from Pioneer Midwest.

<https://www.youtube.com/watch?v=4h1D9HogaCQ&t=2925s>. Skip to 39 minutes in the presentation for the pertinent part.

As illustrated in the video, the [Swix T60 Wax Machine](#) did a much better job compared to the traditional method with the thumb or palm, but the machine retails for around \$400 and the tray needed for each klister is ~\$50. You need a separate tray for each klister. I don't think there are many unaffiliated skiers who can afford this kind of setup. In addition, it requires an electrical outlet, as well as warm up time. I should mention klister spreaders. I've not had much luck with them when it's cold. So my idea was to create something hand held, simple and easy to use that would do a comparable job to the T60 out in the snow with no electrical outlet nearby and in a minimal amount of time.

The roller shown below is showing promise so I thought I would post something about it. It's a trim roller with the roller removed and replaced with a 1 inch diameter cylinder made from aluminum round stock turned on the lathe. Sanding the surface along the axis with 100 grit sandpaper helped the cylinder revolve more uniformly when applied to the klister.



I gather that heated blocks have been used to smooth klister but I could not find a reference to using a heated hand held roller to do it. Here's a short video showing how the roller works in the shop. I'm using a pocket size butane torch with a soft flame setting as well as the usual pencil point as the heat source. As in the video below, heating the roller to the point where you can still touch it with your finger for a second or two is sufficient. Getting it hotter does not help. In moderate temperatures it will stay hot enough to do one ski without reheating. As the roller cools the surface will smooth out and turn slightly white due to short super fine 'hairs' being pulled off the klister. Stop there. If the little hairs don't spontaneously meld back into the surface, a single light stroke with the palm or finder will fix it. Further rolling starts to form a clumpy surface as the roller cools. The roller worked better, gave a nicer finish in the one test I've done so far outside when it was colder (~38 degrees.) At this point I would only say that the idea has promise. As soon as I get the chance to try it out in the snow I'll add more here.

<https://youtu.be/fKDW1ErI904>

Larry Robinson

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