

## How to work with silicone core knuckles

If you are clicking on this guide, you are probably either interested in silicone core knuckles, or have a piano with them on and are wondering what differences there are with them? The good news is that silicone core knuckles are very similar to felt ones. Functionally speaking they are identical, but with the added benefits that silicone provides over felt such as a consistent size, density and durability. They can be made to be softer for a quieter action without the decreased lifespan you get with felt knuckles.

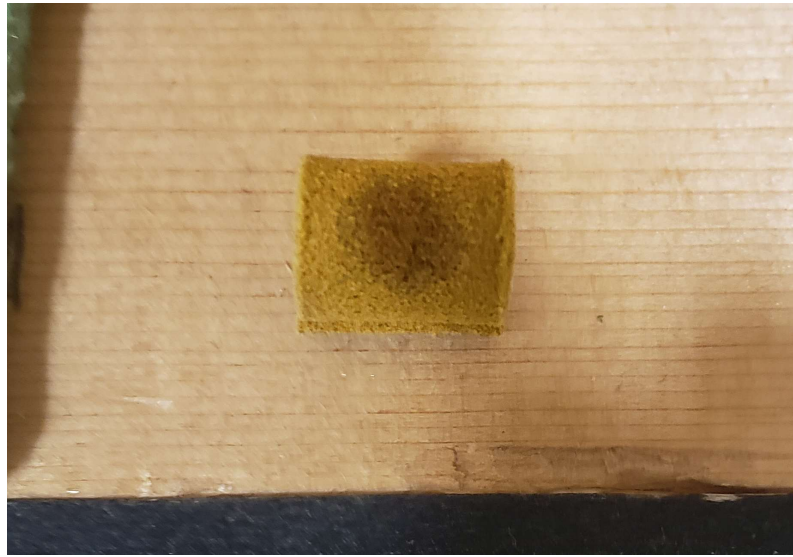
There are a few small differences though. Mainly, you need to be mindful of what chemicals you put on them. Most products developed for pianos had felt and wood in mind, but not silicone. While silicone is hydrophobic to water, it is not to other solvents. Protek, for example uses a solvent that is absorbed by the silicone causing it to increase in size and decrease in density. This results in the core material puffing out the sides as seen in the image below.



The above image was taken 15 minutes after liberally applying Protek CPL to the knuckle.

For those who used Protek as a knuckle lubricant, this means you will need to switch. We recommend Teflon powder as we have found this to work better than anything else we have come in contact with, including Protek. Now that being said, we are not talking about a little splash of Protek either. Its not so sensitive as to mean you need to forgo Protek as a center pin lubricant.

Here is an example of what will happen with just a splash of Protek.



The image above was taken right after application. You can see that the dark area where some Protek has been applied in a small amount. The following image is the same knuckle 15 minutes later.



As you can see there is no swelling of the silicone core. Here is the comparison of the 2 knuckles one hour later. You will notice that the knuckle on the right is still wet.



When using Protek CPL, we just want to make sure you are not soaking the knuckles like you would do if you were trying to lubricate the knuckle with that solvent. You should have no problems when applying Protek to the center pins for any wood parts our knuckles are installed in. Just make sure you don't soak the knuckle.

Now let's say you are looking at this guide because you already have applied Protek to the knuckles being unaware that Protek would react. Well, the good news is that you are not alone. Not knowing what the Protek secret ingredient was, we made the same mistake and promptly put those knuckles through a battery of testing using everything from Mclube 444 to Profelt. We have found that Protek was one of the few chemicals used in piano actions that resulted in a reaction to silicone. We also learned that the effect is not permanent. Protek will evaporate away after a few days to a week depending on conditions. When that happens, the knuckles will shrink back down to normal and retain their original density. If you would like a full spec sheet to cross reference for the silicone core material, please let us know and we will provide one to you.