

My experience is that in cold conditions, hard rubber clarinets warm up more quickly than wooden instruments but remain more stable in terms of tuning. This stability is true also in hot conditions, whereas wooden clarinets can become very sharp, requiring considerable adjustment at the barrel. Like many clarinetists I have been disappointed when an expensive clarinet cracks and, more often than not, the sound and intonation is impaired. Cracking is not the preserve of new clarinets, of course, and a clarinet can crack at any age.

Rubber is an easily sustainable crop which is produced in many developing countries and is a 'green' alternative to the diminishing reserves of mpingo wood. About 35 years ago I tried a hard rubber clarinet (much inferior to the Ridenour instruments) and although I was not impressed by anything else, I was rather surprised at how warm and round the tone was. Unknown to me at that time, the clarinet maker Tom Ridenour was also coming to the same conclusion.

Just after I first heard about Ridenour clarinets, I needed a C clarinet I could leave in the opera pit. As a professional player, it is expected that one can transpose, but the sound of the B flat clarinet transposing is not ideal in all circumstances. I have found that the C clarinet is very efficient in being able to deliver lightness of texture, attack and subtle timbre change. Rossini, Verdi, Smetana, Mahler and Richard Strauss are among the many composers who have employed the C clarinet in symphonies and operas, and I firmly believe that they knew the sound colour was different.

Rubber clarinets cope with climate extremes very well, and touring to hot countries, I feel safer with these hard rubber clarinets than with my wooden pair

I decided to buy the Ridenour 'Arioso' hard rubber C clarinet, not wishing to expose my old, beautiful Noblet C clarinet to the dry, variable atmosphere of the theatre in Cardiff. After a while I liked my new C clarinet so much that I decided to sell the Noblet and decided to buy rubber Ridenour B flat and A clarinets to match the C. These clarinets are now about 17 years old and still play as well as ever, with a round focused sound and great intonation.

With extraordinarily easy emission of sound, these clarinets make playing articulated high passages much easier than on a wooden clarinet and practically eliminate undertones, especially on the A clarinet. For those not familiar with this phenomenon, undertones, or 'grunts' as the Americans often call them, are notes that have an unpleasant low harmonic sounding at the same time as the intended note. These are particularly prevalent on wooden A clarinets in the clarion/clarinet register A, B and C (thumb and register key).

TECHNICAL FEATURES

On the Ridenour 575 A clarinet the C/G sharp key is slightly differently placed and has an accessible independent rod and screw mechanism. This normally lies underneath the left-hand ring key rod mechanism which makes changing the pad and the spring on the C/G sharp a laborious process. The innovative Ridenour design, with an anchored post for stability, makes general maintenance much easier.

How did Tom Ridenour settle on hard rubber as the material for his clarinets? He tells us in his own words

I was an acoustical designer for Leblanc in Wisconsin in the 1990s but left Leblanc in 1997. Then I started working for a company called Brook Mays in Texas.

They frequently sent me several makes of clarinet to test and assess, and among one batch there was one that kept standing out purely because it had a beautiful sound. It blew evenly, and very importantly the high notes in the upper register and altissimo did not have the harsh edge I associated with other clarinets. The response was instant, even in altissimo, and I could increase the dynamic without loss of quality in tone.

This amazed me as I would normally have discarded this clarinet which had an awful tuning scale and mechanism. When I looked down the bore it looked like a gun bore – straight as an arrow and with a high gloss finish that cannot be achieved in any wooden clarinet. Nor can the stability of the dimensions be matched in wood.

So I took a piece of abrasive, scratched the surface of the clarinet and exclaimed 'that's hard rubber!'. I sent a message to the owner of Brook Mays saying that if we could put the correct dimensions into the bore and create the perfect tone hole placement, the clarinet would not only be acceptable or competitive, it would be superior.

The rest as we say is history. I then built a new clarinet using this material based on a wooden clarinet I had designed. Each time we checked the production line and selected a clarinet to randomly compare with the original wooden design, the randomly selected hard rubber instrument tuned and sounded better than the wooden original.

Hard rubber takes very, very precise dimensions with much greater consistency than machined wood – wood that after machining goes through a polishing procedure that basically destroys the fine dimensions of a reamer. To compound the problem, the clarinet is handled by a worker throughout the process. Hard rubber clarinets are much more consistent than wooden clarinets, tune more uniformly, are more stable and won't crack.

