

Saxophones - What's on the surface?

Brass

- Brass is made from copper & tin (up to 60% copper in a professional instrument less in a student horn). Brass oxidises easily, so it needs to be protected by a thin layer of more resistant material, but it must be thin enough to allow the brass to vibrate readily & naturally as possible.

Sax Finishes

Due to modern methods of production, there are many different finishes or coatings available for saxophones.

- Baked Epoxy lacquer is still the standard. This is like a thin film of plastic placed over highly polished brass. There are also coloured lacquers available. Think the colour, and I am sure it is available on a saxophone.
Advantages: protects the brass & looks good.

Disadvantages: will wear through quickly, especially if not wiped over (body acid can eat through the lacquer)

- Electro Plating – advances in plating techniques have now allowed the option of not only silver, gold and nickel plating but various shades of the above including black, mostly using a nickel base. The various different colours do not change the sound in any way, as the thickest of any of these plating processes is 25/1000th of an inch. Silver plating is generally the best adhering and longest lasting of all the plating methods, therefore it is highly recommended.

Advantages: Electro plating is very thin and metal on metal and therefore doesn't restrict the vibrations as well as lasting longer than lacquer.

Disadvantages: looks worse when it does wear.

The dilemma of relacquering a saxophone

Bare Brass exposed to the environment will eventually corrode away to nothing (over a long period, as the copper leaches out into the atmosphere), so it is recommended that the bare brass be protected in some way, however, when an instrument needs to be relacquered, it must first be polished to a mirror finish, this includes removing all dents and scratches. Polishing in this manner reduces the thickness of the brass (keep in mind the brass is less a millimetre thick) which therefore affects the sound.

There is no real answer to solving the need to relacquer an instrument against the danger of doing so!

Wiping the instrument with a cotton cloth after each playing, and making sure it is kept dry will go some way to protecting the existing lacquer, However those instruments with no lacquer at all will probably start to get thinner, although maybe not considerably in your life time.