

## **Article**

### **UV Technology and Customer Satisfaction**

Being in the hearing aid equipment business, I get asked lots of questions about techniques for hearing aid modification and repair. Usually the conversation drifts toward what can be done in the office when a customer has a problem with their hearing instrument. And of all these queries, I can sum up the main topic in two precarious letters - UV.

Now I'm not going to bore you with statistics, but I am going to simplify things a little. UV (ultraviolet) technology has flat-out changed the way we think about hearing aid repair and modification. It has taken what used to be time consuming procedures - only to be attempted by a qualified repair technician, and turned them into something easily performed in the office - by anyone willing to try.

#### **How it works**

The UV process is really rather simple in theory. It works by introducing photoinitiators into common materials that we already use, such as adhesives, lacquers, silicones or acrylics. When this mixed (UV) material is exposed to a UV light source (typically 365nm peak wavelength) the photoinitiators react, causing the material to harden at a rapid pace. The speed at which the material will harden depends on many factors, such as light intensity, distance from the light source, material thickness, and photoinitiator density. The resulting cured material will have the same hardness as expected, in other words acrylics and lacquers will be hard, silicones will be soft, etc. UV materials are widely available, and vary in substance depending on application. We will discuss specific applications in future articles.

#### **The UV advantage**

Imagine one of your newest customers comes into your office with a complaint. He just bought a pair of hearing aids from you a few days ago. One of them doesn't fit quite right and seems to be feeding back. Upon your examination, you feel the canal should be built up a bit. Now I know you probably have a solution for this already, but what if this could be taken care of in just a few moments, maybe even seconds? Lets go a step further and say his other hearing aid came apart (hey, it happens). What if this could also be taken care of quickly, with little hassle? And what if it also had a hole in the shell? We seem to be developing a theme here. What if almost any modification could be done on the spot - with little or not buffing?

Well, first of all you would be a hero for a few minutes, but most importantly your customer would have instant gratification. He's going to tell his family over the dinner table how he went to see you and how quickly you helped him. He's going to tell his neighbors and friends what you did for him and how fast you did it, and how he didn't have to wait for his hearing aid to be fixed at some factory (nobody likes waiting). And you are going to have the opportunity to help more people because you can do this for your customers practically on demand.

It may sound too good, but if you already use UV in your office you know what I mean. One UV system can be a versatile solution to a vast range of issues, and will increase the level of service to your customers. But maybe the biggest advantage is the short learning curve. UV materials and light systems are easy to use and require little training. In fact, I would be willing to bet most people who use this technology have never had formal training. They just got the equipment and jumped right in, learning as they did.

#### **Something to think about**

Lets go back to your customer who had a problem with the fit of his hearing aid. He came to you in the first place because he believed you could help him. He has confidence in you and he perceives (especially in this day and age) you have the equipment and knowledge to fix his problem. Now, you could have taken his hearing aid that didn't fit quite right, made a mark on the canal with a magic marker and sent it back with a note to the manufacturer to be modified. But think of the advantage and opportunity you have of doing this type of repair yourself, with the patient sitting right in front of you. You know exactly how much to build-up the shell, and your customer won't be leaving the office until the fit is right. The repair lab at the manufacturer will only be guessing at how much build-up is enough, and if it is wrong you will need to send it back again. And your customer will be waiting.

**About the Author**

Chris Perkins is the owner of Lightning Enterprises, and facilitates the Lightning Enterprises newsletter. He has worked in the hearing aid industry since 1991 in hearing aid manufacturing and product development, as well as equipment and process consulting.