



AUSTRALIA

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# Back to Basics: THE PLATINUM FOIL TECHNIQUE

By Sascha Hein



**Figure 1.**

The patient presented with an old, discolored class IV composite filling.

Creating the perfect smile for Hollywood actors of the 1930s was one of the most significant endeavors of Dr. Charles Pincus' practice of dentistry in California. The immaculate oral appearance of an actor, which was necessary for a movie, was certainly of no particular importance to the average person of that era. However the message that Pincus conveyed in his 1937 lecture at the California Dental Association meeting hit the nail on the head:

“A captivating smile with even and white sparkling teeth is an important factor for the difficult to describe, ever present characteristic, which we call personality.”

Pincus manufactured very thin, air-fired ceramic shells for those actors who rejected having their teeth cut and crowned. The veneer shells were temporarily glued in place using denture adhesive,



**Figure 2.** (above left)

A customized shade tab is used to determine the exact value and opacity of the body color of the natural central.



**Figure 3.** (above right)

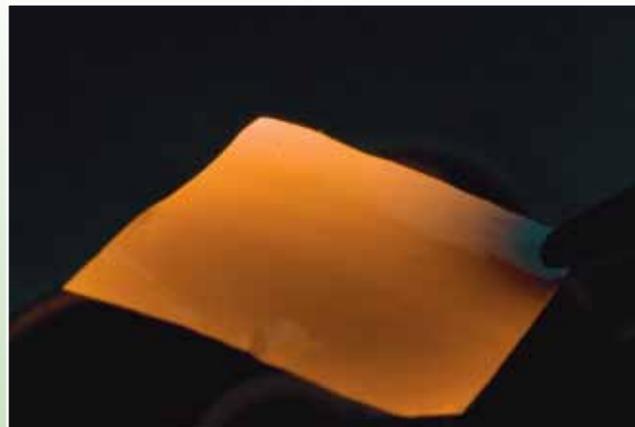
After that, a matching incisal enamel mixture is determined.

**Figure 4.** (right)

Minimally invasive restoration using 0.025 mm platinum foil.

**Figures 5 and 6.** (below left and right)

Before the foil can be burnished, it needs to be heat treated. This will make it softer and hence easier to adapt.





**Figure 7a.** (above)



**Figure 7b.** (left)

A feldspathic porcelain is ideal for bonded veneers because it can be etched and silanated to ensure a reliable connection to the luting cement.



**Figure 8.** (above)

A first, clear coat is applied thinly using CLO (Willi Geller Creation Classic).

**Figure 9.** (right)

which would only last for the duration of the shoot of each scene. The veneer shells provided a respectable alternative for those actors who had to change their smiles only temporarily despite the fact that they were very fragile and modern bonding technologies were yet to be invented.

Today, veneers are probably the most common option at our disposal for esthetic treatments. We distinguish between indirect and direct veneers.

The later is done chairside using composite. Direct, or composite, veneers have the advantage that they can be done immediately, saving time and laboratory fees, thus making this option a very cost-effective solution. However, even modern composites have a tendency to discolor with time and there are also concerns about the longevity of such restorations. Indirect veneers involve either a digital or conventional impression and they are usually made of a number of feldspathic, silicate or glass ceramics or composites.

Although the spectrum of such restorations is broad, in recent years, pressable, refractory and CAD/CAM milled silicate veneers seem to have come to dominate today's market. Although all of these methods work, some involve less hardware requirements such as the refractory die restoration, while all other options imply the use of a more or less expensive piece of equipment.

A less conventional method of manufacturing precisely fitting, highly esthetic, non- or minimally invasive indirect veneer restorations is the platinum foil technique. All one needs is a 0.025mm thick platinum foil





**Figure 10.** (above)

**Figures 11 and 12.** (above right and left)

After completion the platinum foil is removed using a sharp pair of tweezers and with the aid of water. It usually removes easily.

**Figure 13.** (below)

The fit is usually surprisingly good and can easily compete with that of pressables or refractory.

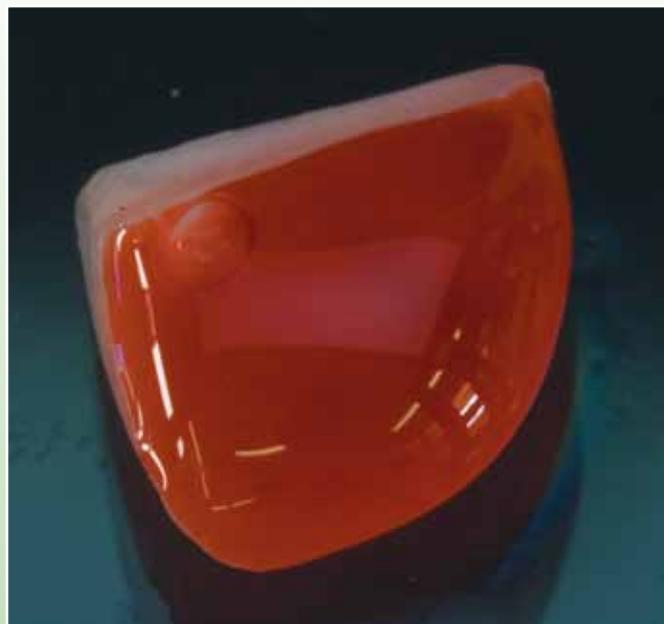


**Figure 14.** (left)

The partial veneer seated on the model for final check.

**Figure 15.** (right)

The feldspathic veneer is then etched using a normal commercial etching gel.





**Figure 16.** (above)

Partial Creation Classic veneer in semi seated position during insert appointment.



**Figures 17 and 18.** (above and below)

One day after bonding using Panavia F.



matrix, a conventional leucite reinforced ceramic system for veneering metal and, last but not least, a little bit of skill.

Platinum foil veneers have recently had a renaissance in certain circles. Admired for their beauty and simplicity, they can be used completely non-invasively for closing gaps, increasing the length of teeth or for any minimally invasive veneer prep such as the case described in this article.

The veneer shown in this case was skillfully bonded by Dr. Daniel Abondanza of Accent Dental, Perth, Australia. **JDT**

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