

TiconiumTM *Premium 100*

Why Such Worldwide Acceptance for Premium 100 Partial Denture Alloys?



Ticonium Premium 100 alloys are fine-grained and formulated precisely for partial dentures. The comparison at left illustrates the extra-fine properties of Ticonium alloys (near left). This results in a stronger crystalline structure and better fit than that of the more typical, coarse-grained alloy shown to the far left.

**"FINE GRAIN"
And . . .
the Finer the Grain, the
Stronger the Metal!**

*Our TICONIUM Laboratory
combines the finest working
materials and technical
knowledge . . .*



*a successful combination we
are proud to offer you,
the Dentist.*

TiconiumTM

DIVISION OF CMP INDUSTRIES LLC
P.O. Box 350 • Albany, New York 12201 • USA
Telephone: 518 434-3147 • Fax: 518 434-1288



**Excellence Builds Its
Own Reputation!**



Ticonium Premium 100 alloys are your guarantee of consistent quality through strength, resilience and fit in every removable partial denture you prescribe. Ticonium materials are developed, manufactured and quality assured with one thing in mind . . . patient satisfaction!



Ticonium Laboratories have been producing premium removable partial dentures of extraordinary fit for over "60" years. Ticonium Premium 100 alloys rarely need adjustment . . . however, because of their unique physical properties and processing techniques, chair-side adjustment is quick and easy! Precision Ticonium partials and your skill assure your patient the ultimate in fit and function.

A Dentist's Guide to Ticonium

TICONIUM ALLOY PHYSICAL PROPERTIES

PREMIUM 100 PARTIAL DENTURE ALLOY

Yield Strength: 115,000 PSI
Ultimate Strength: 145,000 PSI
Elongation: 7.0%

PREMIUM 100 "HARD" PARTIAL DENTURE ALLOY

Yield Strength: 117,000 PSI
Ultimate Strength: 146,000 PSI
Elongation: 5.0%

TYPICAL STELLITE CHROME-COBALT ALLOY

Yield Strength: 80,000 PSI Ultimate Strength: 110,000 PSI
Elongation: 3.8%

Yield Strength

It measures the "maximum load" the appliance can handle without being permanently bent or distorted. When a load is applied to a test bar, it stretches. In fact, it behaves like a rubber band at first: when the load is removed, it springs back to its original size and shape. But, when the load is increased above a certain level, the bar stretches permanently. This is the greatest load the appliance can sustain without appreciable permanent distortion.

This higher this value, the lighter we can make the clasps . . . without loss of retention! Ticonium Premium 100 Regular's yield strength is 115,000 pounds per square inch and Premium 100 Hard's is 117,000 pounds per square inch.

Ultimate Strength

The maximum load the test bar will sustain before breaking. Both Premium 100 alloys have superior strength: Regular = 145,000; Hard = 146,000 pounds per square inch.

Elongation

An extremely significant property, since it gives an indication of the amount of "adjusting" that will be possible with the appliance. This specification is

obtained by fitting the broken pieces of the test bar together and measuring, or by recording the stretch during the test. Here again, Ticonium Premium 100 alloys exhibit extremely workable elongation values.

Modulus of Elasticity

This test measures the "stiffness" of the alloy. The modulus specification has significance only in the elastic range. It shows how much the alloy will bend under a given load. Ticonium Premium 100's value? 27,000,000 pounds per square inch! Compare this with gold alloys, at about 14,000,000 pounds per square inch. If appliances of equal section were loaded in exactly the same manner, the gold would deflect "twice" as far.

Ticonium is stiffer, gold more flexible. We consider that an advantage . . . especially in bilateral cases where you don't want to transmit stress across the arch. Here, the "stiffness" is desirable. Clasps also benefit where the high modulus allows for shallower undercuts with adequate retention.

Soldering

Occasionally, appliances are broken. We can easily add to and repair Ticonium Premium 100 alloys with solder . . . welding is not necessary as with chrome-cobalt alloys! Ticonium alloys accept solder very readily, and, a 19 carat white gold (perfectly matching Premium 100 alloys) is available.

In addition, Ticonium Premium 100 alloys can be cast "directly" against Premium Wire or PGP wire to provide a wrought buccal-cast lingual arm combination. Result: the wire arm is actually bonded to the Ticonium frame, right in the casting!

**PRESCRIBE TICONIUM ALLOYS
WITH CONFIDENCE!**