

## DentaKote™ Applications

DentaKote™ brand dental polymer was developed as a dental coating with superior protective properties. When applied as directed, it impedes the colonization of common oral microbiota. When bacteria cannot accumulate, neither can plaque. Evidence of this is provided by edentulous people (people without teeth), as they don't develop plaque. DentaKote™ provides a non-stick hydrophobic coating to all dental surfaces and dental work. DentaKote provides a nano thin polymer layer which reduces microbiota colonization and therefore the growth of plaque.

A nano thin application of DentaKote™ chemically modifies the surface of the substrate to form a silicone coating layer. This silicone layer has superior properties in resisting acids and the accumulation of particulate matter. Indeed, the reduction of acids and debris will reduce the detrimental effects of low pH on the teeth. This lowers the incidence of cavities and potentially lowers the risk for cardiovascular related conditions stemming from poor oral health and periodontal disease.

The application of DentaKote™ when applied directly to receding gingival root cervical regions decreases sensitivity. Clinicians and patients have witnessed a reduction in sensitivity after just one application. Ideally, applications can and should be performed as a protocol, applied at least twice yearly as a part of routine preventative care.

Although highly effective in retarding microbiota development, DentaKote™ is not intended to replace standard oral hygiene practices. Instead, it enhances the efficacy of hygiene by reducing bacterial adherence thus reducing the bacterial load. Hygiene is improved because DentaKote™ effectively waterproofs the teeth and dental appliances. Oral fluids are prevented from entering into the porous dental surfaces and dental resins.

In advocating a tooth coating, there must be an apparent benefit to patients. The dental professional will use it as a standard procedure. Patients will benefit by a reduced incidence of dental diseases. They will also benefit from the ease of hygiene resulting from the use of DentaKote™. The primary benefit of DentaKote™ is to offer a product that will improve patient hygiene satisfaction and effectiveness.

DentaKote™ is a clear, tasteless, and odorless silicone polymer gel coating. DentaKote™ helps protect against moisture, fluid corrosion, chemical or biologic fouling. It reduces hygiene/maintenance by providing a long-lasting, non-sticking, non-wetting, gas-permeable (breathable) coating.

It can be applied by dentist or hygienist. Ideally, it is applied immediately upon completion of the prophylaxis. It is recommended to apply the fluoride if patient wishes after the polymer is applied. DentaKote™ dries instantly and is only one micron thin when applied properly.

In addition to natural teeth, DentaKote™ is excellent for prosthetic devices. The action of applying the polymer to prosthetics works in the same fashion as with natural teeth. DentaKote™ bonds and protects with its remarkable silicone properties to produce many benefits. DentaKote is excellent in helping to reduce bacterial load and denture staining. In addition, patients will be delighted that they can once again enjoy formerly forbidden foods

such as meat, mashed potatoes, chewing gum, caramel candy, and host of other delights. DentaKote's™ hydrophobic and slippery surface help to reduce the sticking factor. After an application of DentaKote™, patients report improved retention of their full dentures due to a better peripheral seal and less dislodging forces caused by sticking foods.

### **Technical Aspects**

The current method to improve denture retention is to apply wetting agents to improve surface wettability. DentaKote™ does the opposite. Its high contact angle causes the slightest amount of saliva (or other fluids) to have a high bead, providing a peripheral seal even when xerostomia occurs.

Both adhesion and fouling are related to the chemistry of a particular surface. Recent recognition of this is evident with the new osseo-integrated dental implants. A surface of titanium oxides promotes bone adhesion. These materials also promote microbial fouling when they are exposed to the oral environment. DentaKote™ should be applied to the exposed portions of implant body, abutment, and prosthesis. Application may be applied immediately after surgery or initial healing period.

Application of DentaKote™ to the exposed surfaces 5-7 days post implantation will change the exposed surfaces to a non-stick finish that will not promote plaque formation. All dental surfaces and prostheses will benefit from an application of DentaKote™ after insertion.