Reduce or Eliminate Plaque

WDR|Scientific, LLC
World Wide Distributor of
KISSCare ULTRA®
Self Bonding Silicone Polymer for Dental Use

Contents © Copyright by WDR|Scientific, LLC and Beach Quest Scientific, LLC – All Rights Reserve
Oral Bacteria and Bio-Films

It’s agreed - Bacteria, Plaque and Biofilms are here for the long run.
Bacteria, Plaque and Bio-Film

People who have No teeth have No Plaque
Bacteria Plaque and Biofilms

People who have Teeth
People who have Dentures
People who have Implants
And Other Dental Restorations
Can and Do Develop Plaque and Biofilms
Bacteria Plaque and Biofilms

- **Dental plaque** is a biofilm, usually a pale yellow, that develops naturally on the teeth. Like any biofilm, *dental plaque* is formed by colonizing bacteria trying to attach themselves to the tooth's smooth surface.

- **A Biofilm** is a well organized, cooperating community of microorganisms. The slime layer that forms on rocks in streams is a classic example of a biofilm. So is the plaque that forms in the oral cavity.
Research into Biofilms

• Oral Biofilms need a hard surface to develop (teeth or restorations).
• Plaque and Biofilms harbor bacteria which protect themselves with a resistant matrix of bio-mater.
• It is estimated that it takes upwards of 1,000 times more antibiotic to eliminate biofilms than free floating bacteria.¹
Current Elimination Methods

• Regular tooth brushing
  • *Removes food, light plaques but they reform quickly*
• Regular Flossing
• Antibiotic mouth washes
• Manual or Ultrasonic scaling
  • *Immediate but temporary removal- plaques quickly reform*
• Antibiotic gingival packing
  • *Rarely effective over long term*
Is there a better solution?

Yes!

We can eliminate the ability of the Plaque or Biofilms to adhere to a HARD SURFACE.

*We can seal intact and damaged tooth enamel, restorations and dentures placing a non stick protective surface that resists attachment of Plaques and Biofilm formation.*
Self Bonding Silicone Polymer

- Research shown by Sang E. Park¹, DDS, et al that Self Bonding Silicone Polymers can seal Dentures and other oral surfaces to prevent c.Albicans and other similar pathogenic bacteria, from adhering to the hard surfaces of dentures in the mouth.

- Where bacteria, plaque and biofilms cannot stick, they cannot exist, and are handled by the body’s natural defense systems.
What is Self Bonding Silicone Polymer?

- Silicone is the most inert material known to man.
- Silicone has a long and valued history in medicine and health care.
- Self Bonding Silicone Polymer is a catalytically enhanced polymer that opens the silicone molecule and allows a portion of the silicone to stick to one surface while presenting a resistant surface to the other.
KISSCare ULTRA®
Self Bonding Silicone Polymer

• Invented by Keith Kent, DMD in the 1980’s
• Originally developed as a dental coating
• A Pure biomedical grade silicone gel polymer
• Applied
  • After a through cleaning
  • With a simple burnishing technique
  • With simple available instruments
• No curing or dry time
Amazing Chemistry

One side sticks to a substrate
The Other Doesn’t!

Amazing Dual natured polymer is so unique it’s patented:

US Patents
4623593 & 4839456
Introducing KISSCare ULTRA®

Pure Silicone Molecule
Resists Acids, Sticking Foods and Microbia

Methyl Layer
The Non-Stick Surface

A Thin Layer of Silicone

Oxygen Group
Provides a Tenacious Bond

Chosen Substrate
Natural, Acrylic, Metal, Etc.

KISSCare ULTRA® Self Bonding Non Stick Polymer
A Panacea?

NO

• The Silicone, once applied will last many months.
• While **very sturdy**, the Silicone Polymer is subject to micro abrasion and physical wear. Physical destruction of the bonded surface by other means can affect the coating.
• The Silicone should be re-applied after every cleaning or other physical disturbance to the coated surface.
Practice Builder – You Bet

- The Silicone can be billed through regular insurance provisions as
- Anti Staining coating or as a De-sensitizer.
- This material makes Patients HAPPY
- Food and candy won’t stick to teeth or restorations.
- Dentures remain fresh with improved retention
- The Silicone soothes and protects oral tissues as well.
Five Minutes

- After thoroughly cleaning the intended surface of application
- You can apply a protective coating to two full arches in **less than five minutes**.
- **No curing time**
- **No drying time**
- A small amount of material goes a long way
- Once applied it’s ready to begin service.
Patient Benefits

- Seals Tooth Enamel, Restorations, Implants and Dentures
- Desensitizes
- Blocks Staining
- Resists acids
- Food, candy, bacteria and biofilms can’t stick
- Improves Denture retention through Hydrophobic actions and wettability
- Soothes and protects oral tissues as well
But how does it work?

The Self Bonding Silicone Polymer is Super Hydrophobic and Mono Molecule Thick

The Silicone changes the surface to which it is applied to pure inert Silicone Polymer One Molecule Thick

When applied to a surface substrate- Natural or artificial

- The Silicone Polymer **seals** the surface to which it is applied
- The Silicone Polymer is *Super Hydrophobic with a contact angle of over 120°*
- The Surface is **Gas Permeable**
- The Surface **Blocks Stains**
- **The new surface attracts Oxygen**

The product BLOCKS the ability of oral microbia, biofilms and food from adhering to the surface of the coated substrate. *They can’t stick to the Silicone surface!*
Super Hydrophobic KISSCare ULTRA®

“Hydrophilic” versus “Hydrophobic” contact angles on KISSCare ULTRA® treated surface
Won’t any Silicone do this?

NO

• Normal Silicone polymers are SO inert they won’t last five minutes in the oral environment before being washed away.

• Only Self Bonding Silicone Polymers that have been treated with Trade Secret and Patented methods will provide the above benefits.
Hey- What about Teflon®?

• Teflon®* polymers are indeed very non stick
• Fluorine based, Teflon® has been shown by the US Environmental Protection Agency to migrate from it’s treated surfaces and is a known carcinogenic.
• Teflon® can only be applied with harsh chemicals (poisonous) or intense heat and mechanical bonding methods which are too dangerous and outside of the scope of the Dental Profession.

TEFLON® is a Registered Trademark od DUPONT®
Where can I get Self Bonding Silicone Polymers for My Practice?

You can obtain the amazing KISSCare ULTRA® product directly from:

WDR|Scientific at:

www.wdrscientific.com

1-800-653-0683
Citations


2- Sang E. Park, DDS, MMSc Hans-Peter Weber, DMD, Dr Med Dent Shigemi Ishikawa-Nagai, DDS, MSD, PhD
   *Self-Bonding Polymers as Surface Coatings of Restorative Resins to Prevent Staining*

Sang E. Park, DDS, MMSc, Ryan Blissett, DMD, Srinivas M. Susarla, DMD, & Hans-Peter Weber, DMD, Dr Med Dent.
   *Candida albicans Adherence to Surface-Modified Denture Resin Surfaces*

3- Keith Kent, DMD. *The Science of Silicone Polymers*
   KissPolymers.com 1998-2014