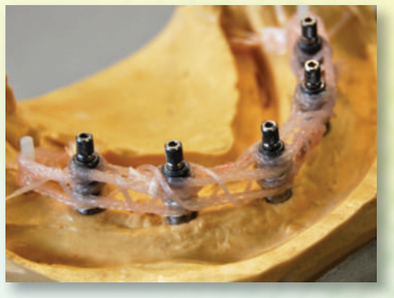
IMPLANT FIBER
FRAMEWORK TECHNOLOGY

BIO COMPOSANTS MÉDICAUX

FIBERFORCE CST™
CABLE STAYED TECHNOLOGY



INSPIRED BY **SIMPLICITY AND AFFORDABILITY**

The CST ™technique makes the manufacture process both fast and simple. A CST™ framework can be made in approximately 30 minutes and requires no casting, scanning, or milling – making it accessible to any dental professional with a light curing unit. All the usual protocols for fixed-hybrid dentures are followed which means familiar routines and processes are maintained.

Not only are CST™ frameworks strong and easy to fabricate, they're affordable – making a fixed denture solution more accessible to more people

IMPLANT FIBER
FRAMEWORK SYSTEM

VIDÉO SUR
YouTube **Bio Composants Médicaux**

FIBERFORCE CST OFFER INCLUDING :
1X PINK FIBER (HYBRID 1:6), Ø 1,3 MM, 450 MM
1X PINK FIBER (HYBRID 1:4), Ø 1,2 MM, 300 MM
1X BIOBOND SF, 5ML
1X PINK RESIN LIGHT CURE, 3ML + 5X CANNULAE ET + 5X CANNULAE RT
3X PILLAR Ø 1,2MM

FLYER - FIBER FORCE CST™ UK- 27/11/2020

Medical device for dental treatment, reserved for healthcare professionals. Please read the instructions on the leaflet or on the label carefully before use. Class: IIA (CE marking certified by SGS) CE1639.

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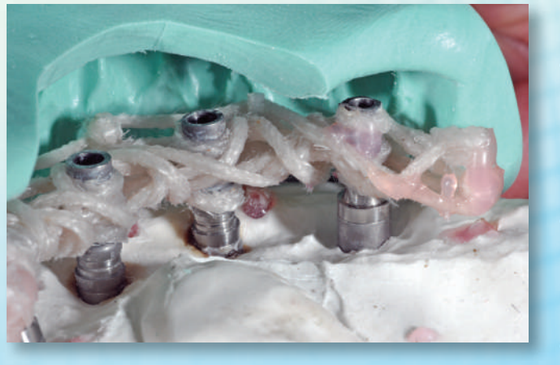
IMPLANT FIBER FRAMEWORK SYSTEM

Since its introduction FiBER FORCE™ has set the standard for reinforcement applications in removable dentistry. From the minds that brought you FiBER FORCE CST™ represents the next major evolution in fiber design and application: an ingeniously simple concept for fabricating an implant auto-supported fiber structure for fixed/hybrid dentures, popularized by solutions like the All-on-4™ implant system.



- **Innovative** compressible hybrid fiber design for optimized physical strength
- **Improved** compatibility with the acrylics and composites that are used to complete the final appliances resulting in outstanding resistance to stress forces
- **Affordable** cost per arch makes fixed implant solutions more accessible
- **Leverages** known engineering concepts and the beneficial physical properties of Fiber Reinforced Composite (FRC)
- **Simple and fast** technique allows manufacture of a framework in 30 minutes
- **Requires no** CAD/CAM technologies or systems - accessible to all dental professionals

FIBERFORCE CST™

INSPIRED BY **ENGINEERING**

CST™ was inspired by two known engineering principles and concepts. The first, which inspired the CST™ name, is cable stayed bridges.
All modern long span bridges across the World are now built using cables extended from central support pillars (think of them as implant cylinders) to support the bridge decks. The second inspiration is reinforced concrete design, which applies the concept of flowing concrete around a specifically designed grid or structure. In either example, the materials used work together dynamically to create strong and resistant structures.

INSPIRED BY **PHYSICAL COMPATIBILITY**

CST™ fibers have elastic properties that are much closer to acrylic than metal. The key term is “visco elastic”. Visco elastic materials will deform under stress loads but return to their original shape or form as long as those stress loads don't surpass certain levels. The key benefit of visco elasticity is that it reduces peak stress loads by stretching out the load “period”. Like cable stayed bridges and reinforced concrete which themselves take advantage of visco elasticity, the CST™ concept results in strong and durable prosthesis in part due to the high degree of compatibility between the CST™ fibers and the acrylics or composites flowed or “processed” around the CST® framework.
The strength of the finished prosthesis is also impacted by the chemical compatibility between the CST® fibers and the acrylic – they chemically bond.

INSPIRED BY **PHYSICAL PROPERTIES**

The addition of glass fibers has consistently been shown to increase the fracture resistance of the dental acrylics. In one study, the fracture resistance of denture acrylic increased by 280% with the addition of FiBER FORCE™ mesh fibers at a volume of 25% by weight.[1] FiBER FORCE CST™ frameworks processed in acrylic have been shown to resist forces of 400 daN (880 lb.).[1] On a distal extension of 11mm a fracture resistance of 92 daN (202 lb.)[1] has been demonstrated - 200% more than an unreinforced distal extension. As maximum generated posterior intraoral forces - as opposed to functional forces, which are much lower - are generally accepted to be in the region of 50 daN (110 lb.)[2], FiBER FORCE CST™ structures have demonstrated sufficient physical strength to stand up to even the most extreme intra-oral forces.

[1] Internal data
[2] J. F. BATES, G. D. STAFFORD and A. HARRISON. Masticatory function – a review of the literature: (II) Speed of movement of the mandible, rate of chewing and forces developed in chewing. *Journal of Oral Rehabilitation*, October 1975, Vol. 2, Issue 4, 349-361

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