

SmartcordX



Make It SMART
EASTDENT

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EASTDENT

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Smartcord

Smartcord™ gingival retraction cord is a non-impregnated knitted cord made from 100% cotton and used for tissue displacement and management prior to taking an impression.

Smartcord™ is ideal to use in combination with RapidStat™ hemostatic agent. The knitted cord contains numerous interlocking chains that carry greater quantities of hemostatic solution compared to twisted or braided cord.

100% Cotton

Smartcord™ is made of 100% cotton, which is safe and makes moisture control effective without gingival irritation.

Knitted retraction cord

Smartcord™ is available in a specially knitted type cord made of the finest 100% cotton, which has better absorbency and expansion than the braided or twisted types.

No Fluorescent Whitening Agent

Smartcord™ is dyed with hydrophilic dye without fluorescent whitening agents, which makes it safe to use without any side effects.

Extended length

120inch / 305cm, over 20% longer

Options

Smartcord™ is available in 5 diameters identified by different colors.



Smartcord[™]X



AlCl₃-6(H₂O)

Smartcord X[™] is a knitted retraction cord, made of 100% cotton, impregnated with Aluminum Chloride Hexahydrate 1.2 ± 0.8 mg per inch of cord.

Smartcord X[™] contains no epinephrine. The use of vasoconstrictors for gingival retractions and hemostasis is potentially dangerous and should be avoided.

So, Smartcord X[™] is very effective in the temporary gingival retraction and hemostasis without causing any cardiovascular problems.

Smartcord X[™] is colour coded for easy distinction of sizes and to contrast well with the gingiva.



SmartcordX 0⁴

**THE FINEST
RETRACTION CORD**



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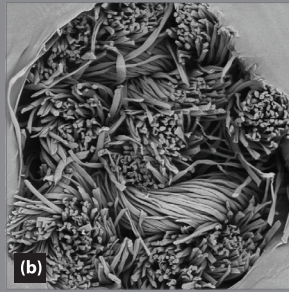
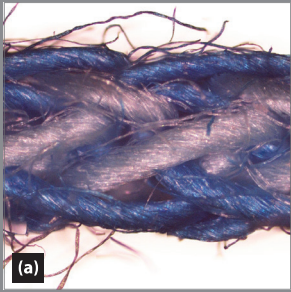


Photo magnified X50 and Cross-sectional view magnified X250 of Smartcord™

(a) The photo of the figure magnified X50 shows the structure of a knitted form. This structure allows more resiliency and elasticity than a twisted or braided form.

(b) The cross-sectional view of the figure magnified X250 shows plenty of voids among the fibril, which allow space to absorb blood, crevicular fluid and hemostatic agents.



U product



Smartcord™

Comparison of photos between Smartcord™ and the retraction cord of "U" company under a UV lamp.

The retraction cord of "U" company shows an illuminated surface. This means fluorescent whitening agents are included.

But, in Smartcord™, there is no change, because Smartcord™ is dyed with hydrophilic dye that does not contain with fluorescent whitening agents. This makes the use safe and decreases the chances of side effects in the clinic.



U product



Smartcord™

Comparison of the methods of winded retraction cords between a Smartcord case and that of "U" company.

In the inner view of the retraction cord case, the retraction cord of "U" company is winded in freely without a bobbin. In this case, the retraction cord is sometimes tangled by itself in the case, therefore the user must open the cap and make effort to solve it. It is very very inconvenient and contaminations may occur.

On the other hand, Smartcord™ has a bobbin in the case which the gingival retraction cord is spooled on, helping it stay tangle free. This provides fast and convenient use, and decreases the chances of contamination.



BobbinInside™



ClearWindow™



EasyCut™

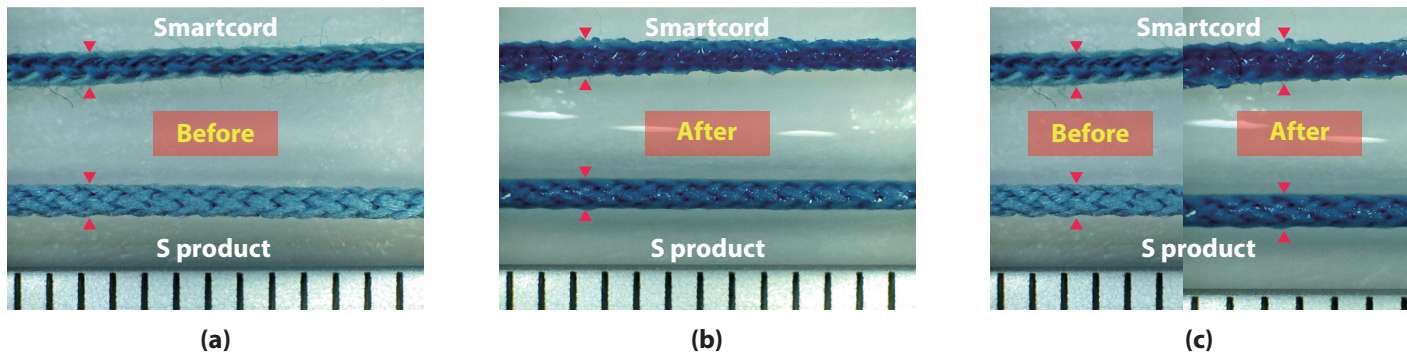


SmartRuler™

More Econocially, Conveniently and Safely
Smartcord™

Product	Length	Optical Brightener	BobbinInside	ClearWindow	EasyCut	SmatRuler	Vasoconstrictor
U Product	96 inch / 244 cm	O	X	X	O	O	O
Smartcord X™	100 inch / 254 cm	X	O	O	O Zirconia blade	O	X AlCl₃-6(H₂O)

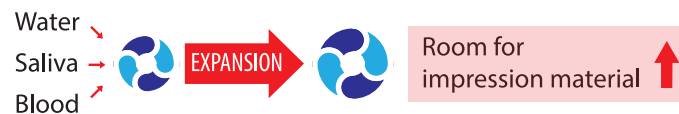
Most Improved Retraction Cords *proved by Expansion Test 1*



Comparison test of the expansion between Smartcord and S product

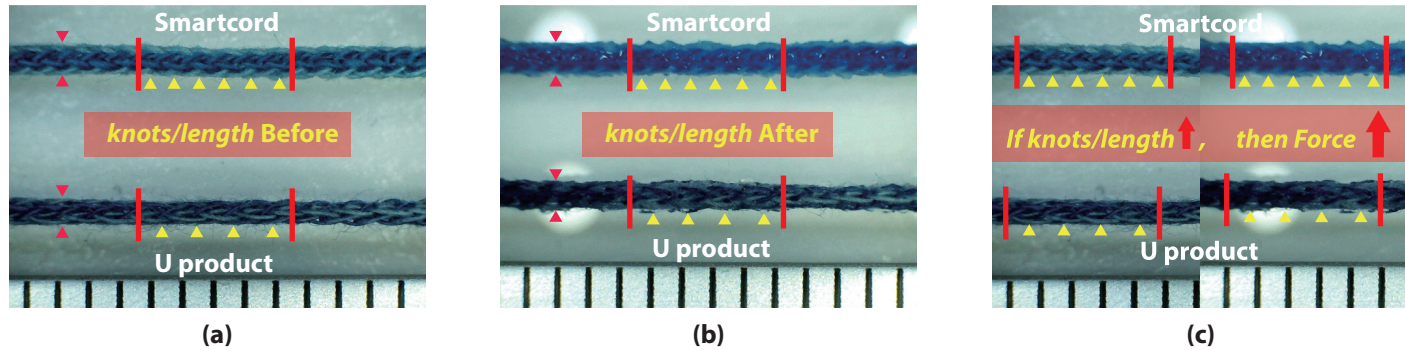
The pictures above are for the comparison of expansion before and after the resorption test between Smartcord and S product. S product is rarely expanded while Smartcord is notably expanded. This result seems because of the different knitting method and the original material: Smartcord - cotton 100% vs S product- nylon.

Retraction cords are expanded when contacting with saliva, blood, water and etc. inside the gingival sulcus. As is well known, therefore, securing room for impression materials is one of the most important functions of retraction cords.



<https://youtu.be/7oACAr9BRrg>

Most Improved Retraction Cords proved by Expansion Test 2



Comparison test of the expansion between Smartcord and U product

The pictures above are for the comparison of expansion before and after the resorption test between Smartcord and U product. Smartcord is expanded more than U product after the resorption test.

Moreover, the number of knots per unit length of Smartcord is a lot more than those of U product. This generates better results in securing room by causing remarkable retraction force when retraction cords are located inside the gingival sulcus.



<https://youtu.be/LgN8-Gfh3Ak>

Hemostasis Test of *Smartcord X* in Protein Solution

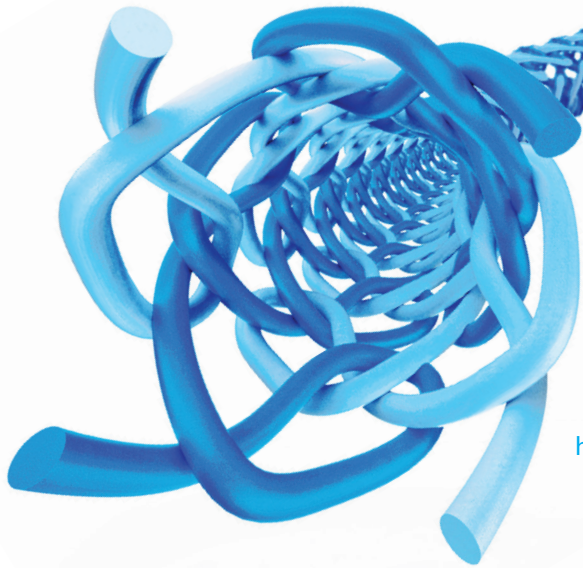


The picture above shows the result of the hemostasis test of *Smartcord X* in protein solution. It observes protein aggregation in the solution near the *Smartcord X* after two minutes. In fact, aluminum chloride exerts its hemostatic effect through a chemical reaction with blood proteins, and this property makes aluminum chloride a very efficient hemostatic agent.^{1, 2, 3}

Smartcord X is a knitted retraction cord, made of 100% cotton, impregnated with aluminum chloride hexahydrate 1.2 ± 0.8 mg per inch of cord containing no epinephrine. Therefore, *Smartcord X* is very effective in temporary gingival retraction and hemostasis without causing any cardiovascular problems.

<https://youtu.be/urnTZboKsWE>

- 1 Saeed Nouri, Mohammad Reza Sharif, Yunes Panahi, Mostafa Ghanei, Bardia Jamali. Efficacy and Safety of Aluminum Chloride in Controlling External Hemorrhage: An Animal Model Study. Iran Red Crescent Med J. 2015 Mar; 17(3)
- 2 Nouri S, Sharif MR, Tabatabaei F, Farokhi S. Investigating the effect of zinc chloride to control external bleeding in rats. Nurs Midwifery Stud. 2014;3(3)
- 3 Shen YH, Dempsey BA. Synthesis and speciation of polyaluminum chloride for water treatment. Environ Int. 1998;24(8):899–910



SmartRuler™

Smartcord X has a ruler designed on the label, letting you measure the required length simple and accurate.



ClearWindow™

Smartcord X has a small window that makes checking the remaining length of the gingival cord easy.



AlCl₃-6(H₂O)

Smartcord X is impregnated with Aluminum Chloride Hexahydrate 1.2 ± 0.8 mg per inch of cord. So, Smartcord X is very effective in the temporary gingival retraction and hemostasis without causing any cardiovascular problems.

https://youtu.be/_gGMhKypn3w



BobbinInside™

Smartcord X has a bobbin in the case, which the gingival retraction cord is spooled on, helping it stay tangle free. This provides convenience and swiftness in use and decreases the chances of contamination.



EasyCut™

Smartcord X comes with a cutting blade in the case, so the cord can be easily cut, keeping it hygienic. It is convenient and also decreases the chances of contamination.



RapidStat



RapidStat™ is a topical astringent solution containing 25% Aluminum Chloride Hexahydrate in a specially prepared aqueous solution.

Gingival retraction can be achieved using a plain gingival retraction cord moistened with RapidStat™.

RapidStat™ contains no epinephrine. The use of vasoconstrictors for gingival retractions and bleeding is potentially dangerous and should be avoided.

A plain gingival retraction cord can be dipped in RapidStat™ and then placed into the gingival sulcus for its hemostatic action.

SUPER Tract

Retraction Paste with Astringent agent

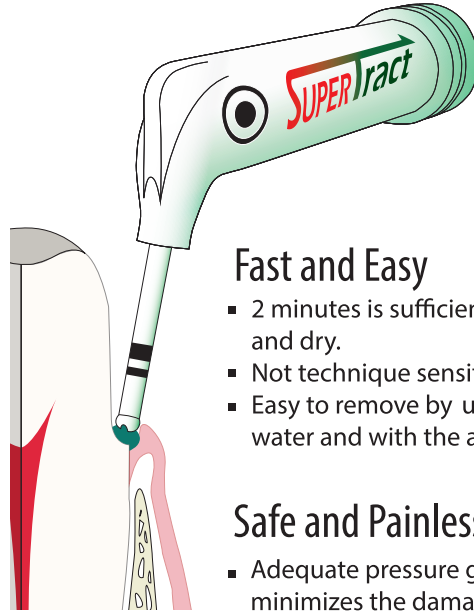


Capsule contains
Aluminum Chloride
& Kaolin

ESTDENT

Highest Efficiency

- The ball tip of Supertract supplies sufficient room for retraction paste without damage in the sulcus.
- By using Push ball, paste can be used until the last drop.
- Supertract contains sufficient material for up to 5 teeth, but may not be used on more than one patient.
- Adequate viscosity of Supertract lets sulcus open effectively.
- Supertract contains Aluminum Chloride and Kaolin, so it helps hemostasis successfully.



Fast and Easy

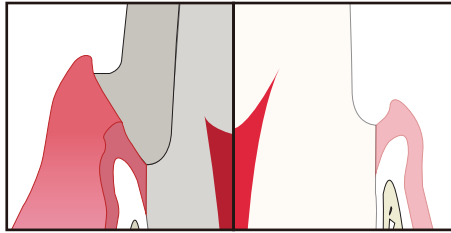
- 2 minutes is sufficient for sulcus open, clean and dry.
- Not technique sensitive.
- Easy to remove by using a mixture of air and water and with the aid of a suction device.

Safe and Painless

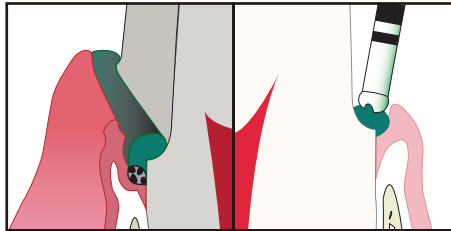
- Adequate pressure generated by Supertract minimizes the damage of tissue attachment and alveolar bone, and at the same time, cause effective sulcus open.
- No additional anesthesia, so increased patient comfort.

Multipurpose Indication

- Supertract is indicated for temporary displacement of the gingiva and/or drying the gingival sulcus during clinical procedures such as:
 - Taking impressions, either with impression material or as digital impression.
 - Cementation of temporary and permanent restorations.
 - Preparation of Class II and V fillings.
 - CAD-CAM scan

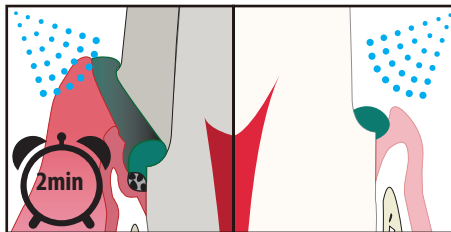


Rinse and air dry prepared tooth.



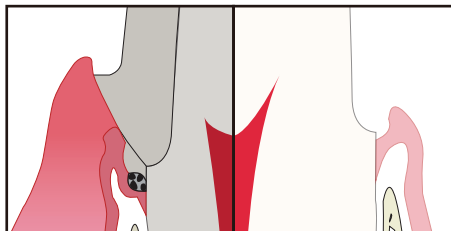
Extrude Supertract slowly into the sulcus, until sulcus is slightly overfilled with material.

Supertract can be used as an alternative to or in combination with retraction cords or other retraction methods.



Allow Supertract to remain in the sulcus for 2 minutes.

After gingival displacement and drying has been achieved, remove Supertract completely from the sulcus, using a mixture of air and water and with the aid of a suction device.



Examine treatment site to verify complete removal of the Supertract prior to next clinical procedure.