

SCHOTT Vitryxx® Bioactive Glass

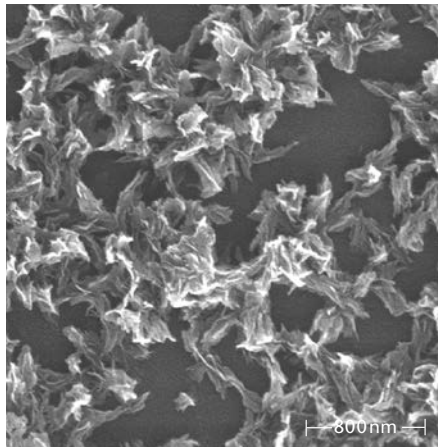
In Nail Care

Vitryxx® Bioactive Glass is a new mineral enrichment ingredient that can build a mineral layer on keratin surfaces. Used in nail care products, Vitryxx® will help to:

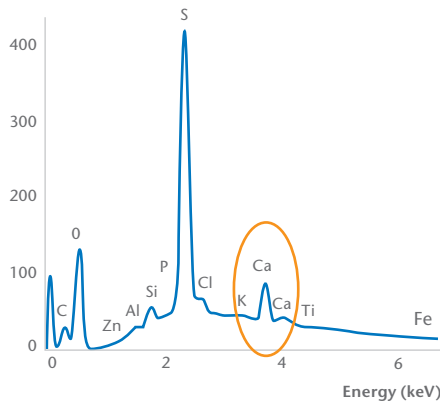
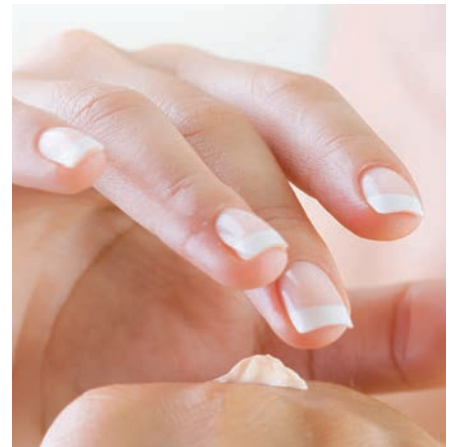
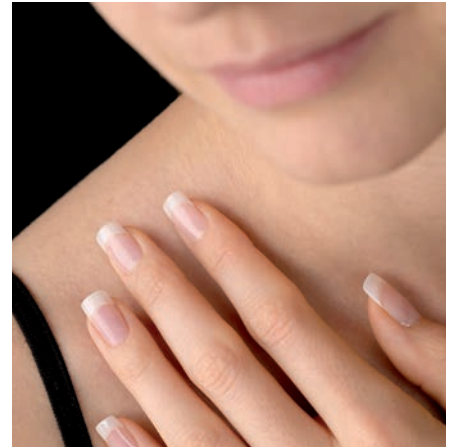
- Strengthen and protect nails
- Smoothen nail ridges
- Reduce chipping of the nail enamel

The mineral enrichment efficacy of Vitryxx® is observed in the results of the following in-vitro studies.

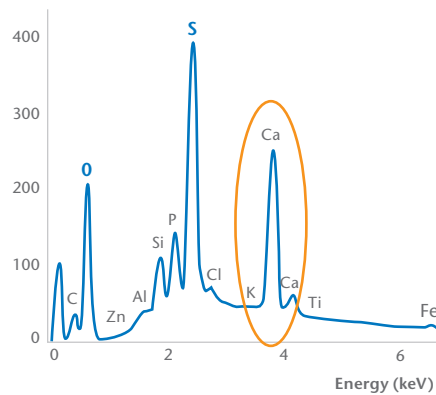
Tested on a glass slide



This picture shows a glass slide on a 1µm scale. The microscope slide was treated with an aqueous solution of Vitryxx® in tris-buffer in a concentration of 0.15 wt.% for 20 hours.



Nail surface reacted with tris buffer and 100 ppm Calcium



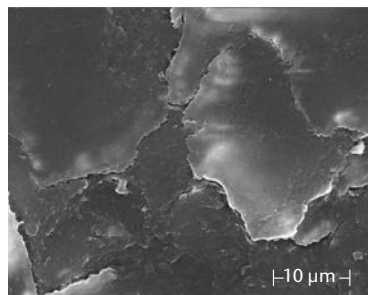
Nail surface reacted with Vitryxx® Bioactive Glass



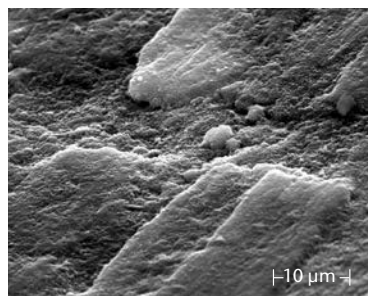
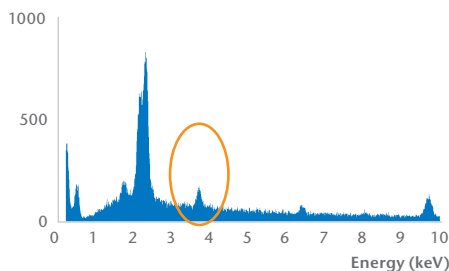
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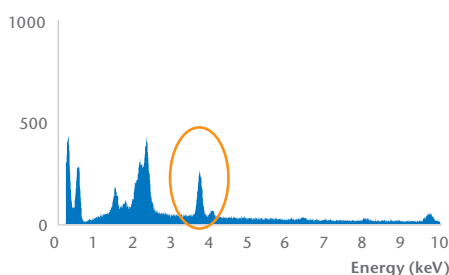
Tested on a finger nail (Keratin)



untreated



treated



Vitryxx® Bioactive Glass significantly reduces the chipping and wear of nail enamel

A panel test, showed significantly better scores for enamel wear after seven days on 22 female subjects.

Formulations and recommendation on LF

Example of nail enamel formulation LF* 0.15% – 1 mass % Vitryxx®

Phase	Ingredients	Mass [%]
A.	Suspending Lacquer SLF-2	78.00
	Red 7 Lake (4.6% Dispersion in Nitrocellulose Base)	3.00
	Lacquer 127P	14.00
B.	Suspending Lacquer SLF-2	4.00
	SCHOTT Vitryxx® M (Calcium Sodium Phosphosilicate (and) Mica)	1.00

Procedure:

- I. Combine all the components in Phase A in an appropriate size vessel.
- II. Pre-mix Phase B ingredients using high shear.
- III. Add B to A and continue mixing until batch is uniform.

*Loading factor depending on formulation

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SCHOTT
 glass made of ideas