

Product information on  
**CAVEX GLASS IONOMER CEMENT**  
Glass Ionomer Luting Cement

Introduction

Cavex Glass Ionomer is indicated as luting cement for the fixing of crowns, bridges and inlays.

Cavex Glass Ionomer Cement is supplied as a powder and as a liquid, both which are carefully compounded to react with one another during the mixing to develop a cement with desirable physical characteristics.

The mixed cement is prepared by gradually incorporating increments of the powder into the liquid and mixing vigorously until a perfect homogeneous mass is obtained.

In general, Cavex Glass Ionomer Cement has the following properties:

- very low film thickness for accurate fit
- high adhesion to dentine and enamel
- high adhesion to fixed restorative materials
- durable and patient-friendly luting
- biocompatible
- pulp-friendly, no over acidification possible

Because of its “similarity” to tooth substance, Cavex Glass Ionomer Cement provides tight adhesion to tooth substance. The adhesion of glass ionomer cements is built up chemically through intermolecular forces to the hard dental tissue. The thin luting film has good adhesive as well as cohesive bonding strength.

Cavex Glass Ionomer Cement is in full compliance with the appropriate international specifications, ISO 9917.

Cavex Glass Ionomer Cement is developed and manufactured by Cavex Holland B.V. of Haarlem, The Netherlands, a Company that is certified according to the provisions of the Council Directive 93/42/EEC as amended by Directive 2007/47/EC concerning Medical Devices, against ISO 9001 and ISO13485.

Cavex Glass Ionomer Cement bears the CE marking of conformity.

### Composition

The basic composition of Cavex Glass Ionomer Cement is as follows:

#### powder

alkaline fluorosilicate glass:                      appr. 72 %  
polyacrylic acid:    appr. 28 %

#### liquid

modifier:    appr. 15 %  
water:    appr. 85 %

### Laboratory control

From every batch, a combination of cement powder and liquid is tested according to the ISO Standards 9917.

In the following table, all the appropriate requirements of these specifications are listed.

<b>Characteristics</b>	<b>Cavex Glass Ionomer Cement</b>	<b>ISO9917</b>	
		<b>Luting cements</b>	
Mixing time	30		sec.
Working time	3		min.
Net setting time	3 - 5	2.5 - 8	min.
Compressive strength	110	>70	Mpa
Film thickness	20	<25	µm
Arsenic content	< 2,0	<2,0	Ppm
Acid soluble Pb content	< 100	<100	Ppm
Acid erosion	<1,0	<1,0	mm/h
Water solubility	0,3 – 0,8		%
Dentine adhesion	5 – 6		Mpa
Mixing ratio (powder / liquid)	3,0:1,0		g/g

### Shelf-life test

There is no specific shelf-life test described for glass ionomer cements.

We can guarantee the good quality of Cavex Glass Ionomer Cement for a period of 5½ years. It is essential, however, that the dentist should always close the containers of powder and liquid immediately after use. If not, the powder might be contaminated with other products, used in the

dentist's office, and the liquid would pick up moisture from the air, thus changing in composition and in performance.

#### Quality control

A batch of Cavex Glass Ionomer Cement, powder and liquid, that has passed all the tests, is released for sales.

In case of one or more requirements being not in specification, that batch is withdrawn and not sold.

#### Biocompatibility and caries prevention

Cavex Glass Ionomer Cement is a luting cement. The adhesion to tooth substance offers an excellent and durable marginal seal.

#### Statement of non-toxicity

We hereby declare that Cavex Glass Ionomer Cement can be safely used and are non-toxic to the dentist, the dental assistant as well as to the patient.

Cavex Glass Ionomer Cement will also normally not be irritant to oral tissues and do not contain any poisonous ingredients in sufficient concentration to be harmful to human beings when used as directed.

Haarlem,  
CAVEX HOLLAND B.V.