INSTRUCTION FOR USE
GLASSYCEM
Radiopaque glass ionomer restorative cement

INDICATIONS FOR USE
Scope – dentistry.
For professional use in medical-prophylactic establishments.
Polyalkene modified material GLASSYCEM is intended for:
- filling the cavities of I, II and V class,
- ART-method filling,
- filling the first dentition,
- fissure sealing, small noncarious defects of dental tissues and not bearing loads,
- for forming the basis-layer for composite restorations,
- temporary filling.

CONTRA-INDICATIONS
Individual intolerance.
Do not use inappropriately.

ADVERSE REACTIONS
At the correct storage, transportation and observance of the instruction for use adverse reactions are absent.

MATERIAL DESCRIPTION
GLASSYCEM set – GIC, consists of:
- powder-liquid;
- conditioner (produced separately);
- varnish (produced separately).
Glass ionomer powder is the micronized fluorinated modified X-ray contrast glass. Liquid contains polyacrylic acid with molecular weight from 30 000 to 50 000, and the modifiers and additives regulating the rate and the mechanism of the setting.
When mixing the powder with the liquid cement is formed with high biocompatibility to the hard tissues of the tooth, sufficient compressive strength (170 MPa, the requirements – minimum 100 MPa) and resistance to acid erosion (less 0.05 mm; the requirements are maximum 0.17mm). The material complies with ISO 9917-1.
Restorative material is available in shades corresponding to the groups A, B and C according to VITA scale. After setting the material meets all esthetic requirements.
Fluorinated glass filler able to allocate and accumulate fluoride ions, provides a prolonged anti-caries effect of the material.
Conditioner is aqueous solution of polyacrylic acid (12 %) of a blue colour. Conditioning of the surface greatly improves adhesion and ion exchange between the tooth structure and glass-ionomer cement.
Varnish contains the film-forming material in a easy-flowing solvent. Protective thin film insulates the tooth filling at the stage of maturation of the effects of saliva and gives a seal esthetic brilliance.
A set of materials is assigned for use in a hostile biological environment in the temperature range from 32°C to 42°C (in a mouth (37±1)°C and humidity (60-90) %).
METHOD OF USE

Before starting work a bottle with the powder should be shaken, not turning, lightly knocking on the hand.

**Surface preparation (conditioning)**

When deep caries, the pulp should be protected with a material based on calcium hydroxide. Prepared, washed and the dried surface should be treated using an applicator (cotton swab or sponge) with the conditioner. In 10-15 seconds, rinse the cavity with water and dry slightly until receiving a brilliant surface.

WON'T OVERDRY!

**Mixing**

Powder with liquid is mixed at the room temperature (18-23)°C on a pad or a glass plate with the plastic or metal spatula, observing the recommended ratios:

<table>
<thead>
<tr>
<th>Ratio powder / liquid, g/g</th>
<th>2.6 / 1.0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2 measuring spoons of powder /1 drop of liquid</td>
</tr>
<tr>
<td>Mixing time, s</td>
<td>30-45</td>
</tr>
<tr>
<td>Working time, min</td>
<td>1.5-2.0</td>
</tr>
<tr>
<td>Setting time, min</td>
<td>4-5</td>
</tr>
</tbody>
</table>

Higher temperature will shorten working time and lower (for example, when mixed on a chilled glass plate) extends the operating time. The increase in the ratio of powder / liquid shortens working time. However, insufficient amount of powder worsens the characteristics of cement.

For obtaining optimum properties of material it is NECESSARY TO CARRY OUT TRIAL MIXING taking into account the ratio of powder and liquid recommended by the producer.

At first within 10-15 seconds it is necessary to mix a half of the measured powder with liquid. Then to add in the portions the rest of powder and in circular motions of the spatula to mix within 20-30 seconds carefully up to receiving a plastic consistence.

For restoration, the material should be brought in a cavity and formed before the end of working time. If necessary remove the excess of material, avoiding formation of air bubbles in the material using a cellulose strip to form a smooth surface of the seal.

**Fillings finishing**

After setting of material the filling should be coated with a thin layer of finish coat, using the applicator, and to dry with a delicate air stream. In 10 minutes grinding and polishing with the use of polishing paste can be done. After processing, a protective layer of finish coat should be applied and the filling surface must be dried.

To recommend to the patient to avoid meal within 2 hours and the maximum mastication load within a day.

Right after mixing metal tools are recommended to be cleared of the cement remains and to wash out with water.

**Attention!**

NOT MIX powder or liquid with other components of the glass ionomer cements.

In case of contact of material with fabrics of an oral cavity, skin or contact with eyes immediately remove material and wash out water.
PACKAGES
Powder (bottle)  10 g  or  20 g
Liquid (bottle)  8 g  or  16 g
Measuring spoon  1 piece
Mixing pad  1 piece
Instruction for use  1 piece

Conditioner (bottle)  5 ml
Varnish (bottle)  5 ml
The conditioner and the varnish are produced separately.

STORAGE
Store at a temperature of 5°C to 25°C. Keep out of dry!
Tightly close powder and liquid container after immediately after use.
Do not use after expiry date.
Shelf life: 3 years from date of manufacture.

MANUFACTURER
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