

Dental Glass Ceramics Instruction

[Product name] Dental Glass Ceramics

[Main composition] SiO₂ Li₂O Al₂O₃ K₂O and other oxide.

[Product color] OM1,OM2,OM3,A1,A2,A3,A3.5,A4,B1,B2,B3,B4,C1,C2,C3,C4,D2,D3,D4,BL1,BL2,BL3,BL4.

[Models] HT,LT

[Product specification]

Cylinder (Diameter mm × Height mm)

11×8,12×18,16×16,20×20,98×10,98×12,98×14,98×16,98×18,98×20,98×22,98×25,95×10,95×14,95×18,95×22,100×10,100×12,100×14,100×16,100×18,100×20,100×22,100×25,12.5×10,12.5×15,12.5×20

Cuboid (Length mm × Width mm × Height mm)

40×15×14,40×15×19,55×15×19,65×25×22,85×40×22,92×75×12,92×75×14,92×75×16,92×75×18,92×75×20,72×40×25,60×25×20,50×25×20,43×25×16,58×29×16,75×36×16,87×56×16,93×75×16,72×42×12,72×42×14,72×42×16,72×42×18,72×42×20,72×42×22,32×15×15,15.5×11×13,18×13×15,18×14×12,14×12×10,8×8×15,8×10×15,10×12×15,14.4×14.4×18,18×16×18,40×15×15,20×15×14,20×15×19,55×15.5×19,65×40×22

[Type] Type II

[Class] II a

[Application] Used to make all ceramic restorations.

[Methods]

Milling: Operated by special dental technician through CAD/CAM or processed by manual polishing system. It is advised to use special equipment. After milling, it needs dyeing material with sintering temperature of no more than 820 °C to finish the surface color treatment.

Pressing: Pressed by special dental pressing furnace. It is advised to use special equipment. Final pressing temperature for dental glass ceramics is 900°C-940°C. Sintering procedure is : Start heat (700°C)→900°C-940°C, heat step 60°C/minute; time delay 10-40 minutes at 900°C-940°C; Need to vacuumize at 700°C-960°C(vacuum value 5bar); do not take out until drop to below 300°C.

[Physical & chemical properties]

1.Flexural strength: flexural strength of dental glass ceramics blocks should be no less than 300Mpa.

2.Solubility: solubility should be no more than 2000ug.cm⁻²

3.Radioactivity: Radioactivity of dental glass ceramics blocks should comply with requirement that radiation activity of element ²³⁸U in unit mass product should be no more than 1.0Bq.g⁻¹

[Biological properties]

1. **Cell toxicity:** cell toxicity should be no more than 1 grade
2. **Short time(oral) general toxicity:** no short time(oral) general toxicity should happen
3. **Delayed hypersensitivity reaction:** no delayed hypersensitivity reaction
4. **Intradermal reaction:** contrast comprehensive mean score difference of test sample and solvent should be no more than 1.0
5. **Ames test:** mutation should be negative

[Contraindication] patients without occlusion teeth are forbidden to use.

[Service life] 20 years

[Storage] Keep storage in clean and dry room, avoid fierce extrusion and vibration and collision with hard things

[Package] Carbon and plastic package

[Compile date] 07/11/2024

[Manufacturer]

Name: Aidite (Qinhuangdao) Technology Co., Ltd.

Address: No.9 Dushan Road, Economic and Technological Development Zone, Qinhuangdao City, China;
No.56, Tianchi Road, Economic and Technological Development Zone, Qinhuangdao City, China

Tel: +86 335 8587898

Fax: +86 335 8587198

[European representative]

Name: MedNet EC-REP GmbH

Address: Borkstrasse 10,48163 Münster, Germany

Please contact the manufacture if you have any question.