Published: 30.12.2010
Revision 2

e-dent 100

Instructions for use **english**

Description:

e-dent 100 is a light curing material for use in an additive manufacturing system. It is especially designed for producing individual long term temporary restorations. The material is adjusted and designed for the DLPM equipment (Digital Light Projection Manufacturing) developed by Envisiontec GmbH.

Hardware requirements:

Perfactory DDP (Dental Digital Printer).
Information about the system is available from:

Envisiontec GmbH
Germany; USA
www.envisiontec.com

Please follow the hardware instructions provided by the hardware manufacturer concerning the build styles and support recommendations for e-dent 100.

Software requirements (e.g.):

DWOS Design Modul from Dental Wings
Version 2.1.0.6523 or later
Dental Designer from 3 Shape
Version 2008 or later with CAMBridge
Version 2.0.1.1 or later

Material:

e-dent 100 consists of multi functional acrylic resins and fillers of 0.04 – 0.7 micron sized particles of inorganic fillers.

Physical Properties:

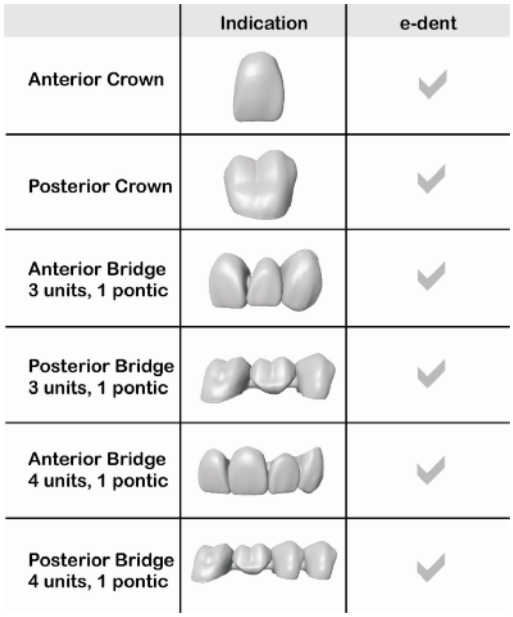
Property	Value	Standard
Flexural strength	>100 MPa	DIN EN ISO 4049
Modulus of elasticity	>4500MPa	DIN EN ISO 4049
Inorganic filler	49,8 % by weight	
Water absorption	complies with EN ISO 10477	
solubility	complies with EN ISO 10477	

Colours:

e-dent 100 is available in the following shades:

Indication:

e-dent 100 is used for the fabrication of multi-unit, fully or partially anatomical long-term temporary crown and bridge restorations.



Contraindications:

Placement of e-dent 100 restorations is contraindicated

if a patient is known to be allergic to any of the ingredients

for bridges with more than one pontic.

Geometric presettings:

Connector areas (minimum):
Anterior bridges: 12 mm^2
Posterior bridges: 14 mm^2

Minimum wall thickness:
occlusal: 1.5 mm in the central fissure
circumferential: 1 mm

Materialparameter (DDP):

Power DDP/ Emission in mW/dm^2	Material	colour	Exposure / Voxelplain	Curing depth	Voxel depth
180	e-dent 100	**A1**	3,5 s	120-150µ	100µ
180	e-dent 100	**A2**	3,5 s	120-150µ	100µ
180	e-dent 100	**A3**	3,5 s	120-150µ	100µ

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Manufacturing Process DDP:

Prepare Data
- Use the Perfactory Software Suite on your computer to modify and distribute the parts on the virtual building platform.
- Based on the material used, prepare the support structures (see Material Data Sheet).

Define Process Parameters
- Choose the correct Buildstyle, which include all relevant process parameters
- Transform the CAD data including supports to a JOB file.

Send Data to Equipment
- Use the Perfactory Software Suite to transfer the JOB file to the DLPM equipment.

Build Part
- Calibrate DLPM equipment according to Manual Section 1.3.
- Build the part.

Post-Process Parts
- See the Material Data Sheet for exact post-processing instructions optimized for each material and/or application.

Post Processing:

Clean parts
- Clean the parts in Isopropanol (max. 2x2 minutes).
- Cleaning under pouring conditions.
- Recommendation: Lab bubbler with tumbler.

Dry parts
- Dry parts with compressed air.
- Avoid residues of Isopropanol on the surface.

Dry parts at 37°C
- Dry parts for 30 minutes at 37°C.
- Use cabinet dryer with outlet air or air circulation.
- Recommendation: Use an incubator.

Light cure parts
- Use post-curing unit Otoflash G171 with 4000 flashes.
- Recommendation: Cure under inert gas.

Refinish parts
- Remove supports.
- Polish surface.

Post cure parts
- Use post curing unit Otoflash G171 with 1000 flashes.

FINAL PRODUCT

Characterisation:

The temporary restorations, especially in the translucent incisal area, can be characterized with light curing dental composites. The reduction of

the restoration in the incisal and vestibular area should not be greater than 0.3 mm.
Please follow the user instruction of the dental composite manufacturer.

Cementation:

Basically, eugenol-free provisional cements / adhesive materials are suitable.
Please follow the user instructions and indications of the respective manufacturers.

Condition the inner surface of the crown by:
A: Microetching (sandblasting) the inner crown surface, or
B: Use a light curing primer / connector
Such as e-dent Connector provided by DeltaMed GmbH.

Notices:

The final properties depend on the post process. The post curing is adjusted on the light curing unit Otoflash G171 with / without inert atmosphere. Using an alternative light source may affect the final properties of the product. Please notice that the light sources need routine maintenance following the manufacturer's instructions.

Symbols:

LOT	**Lot Number**		**Respect the instructions for use**
	Best before		**Irritant**
	Recommended storage temperature		**Information**

Warning Notices:

Irritant to eyes, respiratory system and skin. May cause sensitization by skin contact. Wear protective clothing (see Material Safety Data Sheet).

Storage Instructions:

Do not store above 30°C / 86°F.
Protect uncured material from light. Self-polymerisation is possible.

Manufacturer:

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CE 0124

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