

Title (en)

DEVICE AND METHOD FOR THE APPLICATION OF LIGHT-CURING COMPOSITES

Title (de)

VORRICHTUNG UND VERFAHREN ZUR APPLIKATION VON LICHTKOMPOSITEN

Title (fr)

DISPOSITIF ET PROCÉDÉ DESTINÉS À APPLIQUER DES COMPOSITES PHOTOPOLYMÉRISABLES

Publication

**EP 2897552 A1 20150729 (DE)**

Application

**EP 13765707 A 20130918**

Priority

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Abstract (en)

[origin: WO2014044711A1] The present invention relates to a device and a method for the application of composites in tooth cavities. The device consists of a spray gun with integrated lighting for light-polymerizable composites, a measuring unit and a control unit. The composites are applied under controlled, precisely dosed exposure to polymerization light. According to the invention, the composite initially runs onto the walls of the cavity or onto previously introduced filling material and then, as a result of the light exposure, is transformed into the gel state. Thus, a large part of the polymerization shrinkage of the composite occurs while the composite is still plastically deformable so that any formation of gaps is compensated by the composite continuing to flow. It is only at this point in time that a sufficiently high dosage of light is applied for complete curing to occur. The device and method of the invention allow cavities to be filled in a time-saving manner, without using the time-consuming layer technique involving interim curing, and at the same time the composite exerts even lower shrinkage forces on the cavity walls than in the known layer technique.

IPC 8 full level

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Citation (search report)

See references of WO 2014044711A1

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