


# DeltaFil

Stability from the inside





# Proven GIC benefits + innovative technology = DeltaFil



Glass ionomer cements offer numerous advantages and have an established presence in dental practices for good reason. These cements are particularly suitable for specific patient groups, such as children and senior citizens, as their special requirements can be optimally fulfilled. Until now, however, the use of these materials has been limited on the grounds of mechanical properties, such as abrasion behaviour and aesthetics.

DeltaFil is a GIC-based on an innovative technology – elastomeric micelle technology (EMT). Elastomeric micelles are dispersed within the GIC, increasing fracture toughness and thereby strengthening the cement. This results in a greater resistance of the restorations without affecting on biocompatibility and fluoride release.

**DELTAFIL – A UNIVERSAL RESTORATIVE MATERIAL WITH PROVEN GIC PROPERTIES.**

# DeltaFil: New possibilities thanks to elastomeric micelles

## DeltaFil is an innovative new glass ionomer cement with EMT.

Its defining feature: elastomeric micelles incorporated into the material prevent cracks from developing.

In addition to increased stability, the patent-pending micelle technology developed by DMG also ensures particularly easy handling, similar to that of composites.

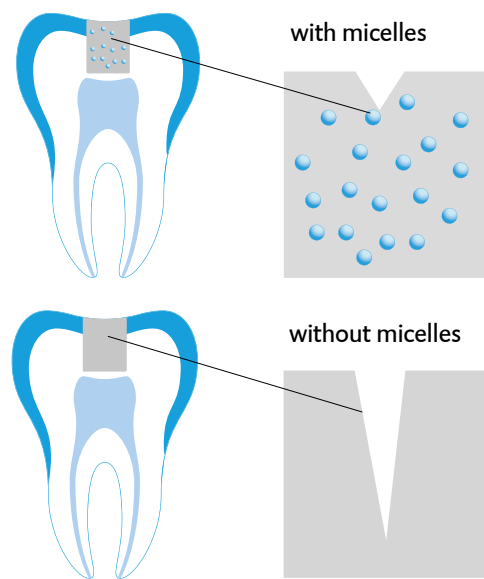
## Easier to use

- ↗ Simple to mould
- ↗ Does not stick to the instruments
- ↗ Perfect adaption to the cavity wall
- ↗ Optimised consistency for all indications
- ↗ Convenient processing time
- ↗ Excellent setting behaviour
- ↗ Suitable for use with metal matrices

**Please only use the Applicap Dispenser from DMG.**

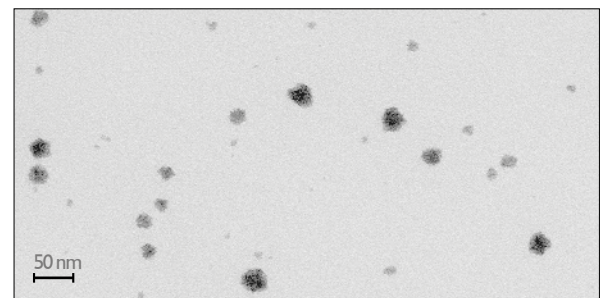


## MINIMAL DEVELOPMENT OF CRACKS THANKS TO MICELLE TECHNOLOGY



**Elastomeric micelles minimise the development of cracks in the filling material.**

## TRANSMISSION ELECTRON MICROSCOPY



**Transmission electron microscopy (TEM) image of a DeltaFil micelle suspension. Staining to increase contrast.** Source: Copyright Fraunhofer IWMS, Feb. 2021, data not published. Patent submission 2019 (WO2019/185175 A1)

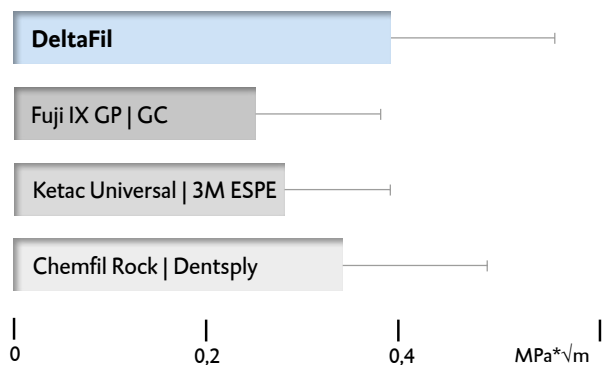
# DeltaFil:

## The versatile glass ionomer cement

### DeltaFil benefits

- ↗ Increased flexural strength and fracture toughness thanks to patented micelle technology
- ↗ Natural surface shine without protective varnish
- ↗ Extended indication: Class III temporary restorations
- ↗ Easy to use, no drying necessary
- ↗ Reduced caries progression due to fluoride release
- ↗ Self-adhesive
- ↗ Excellent biocompatibility
- ↗ Reduced risk of postoperative sensitivities
- ↗ Suitable for atraumatic restorative treatment (ART)

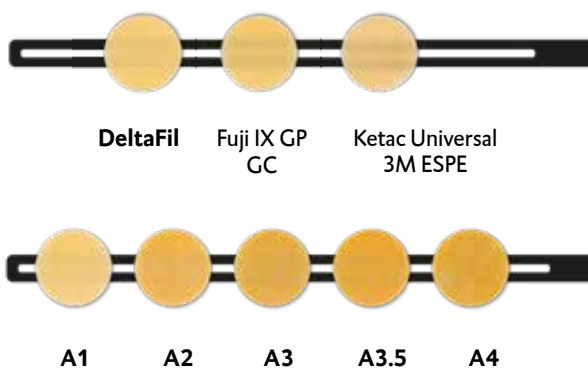
### FRACTURE TOUGHNESS



Compared to all other materials tested, DeltaFil achieves the highest fracture toughness.

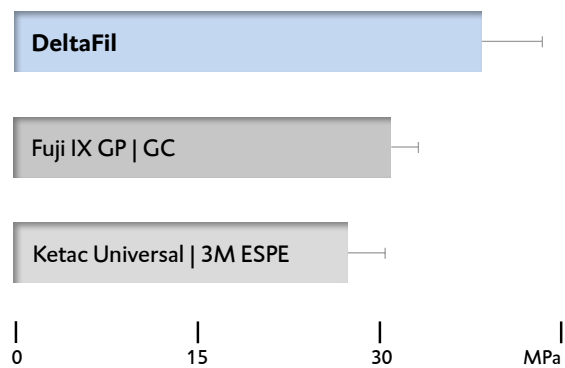
Source: Ilie et al., LMU Klinikum, University of Munich, March 2020. Data not published.

### OPTIMAL AESTHETICS AND AN EXTENSIVE SELECTION OF SHADES



DeltaFil displays optimal aesthetics and is universally applicable due to the practical collection of available shades. DeltaFil is available in the shades A1 | A2 | A3 | A3.5 | A4.

### FLEXURAL STRENGTH



In this category, DeltaFil achieves the highest flexural strength of all materials tested.

Source: Irie et al., Okayama University, August 2020. Data not published.

## TECHNICAL DATA

Mixing time [s]	10
Apply capsule contents after mixing [s]	≤ 10
Max. extraoral working time [s]	120
Net intraoral setting time [s]	240
Start time for finishing, from the start of mixing [s]	360
Compressive strength 24 h / 7 d [MPa]	189 ± 14 / 210 ± 14
Acid erosion [mm]	0.067 ± 0.001
Opacity / C <sub>0.7</sub>	0.86
Radiopacity [% Al]	228 ± 4

## INDICATIONS

- Class I, II, III and V restorations of primary teeth
- Class I and II restorations not subject to occlusal load; sandwich technique
- Class V restorations; sandwich technique
- Class I, II, III and V temporary restorations
- Extended fissure sealing
- Base and liner
- Core build-up



## PRODUCT OVERVIEW

### DeltaFil

Pack: 50 Applicaps @ 370 mg powder, 0.07 ml liquid (75 mg)

Shade A1	REF 520000
Shade A2	REF 520001
Shade A3	REF 520002
Shade A3.5	REF 520003
Shade A4	REF 520004

Starter pack: 1 Bottle @ 15 g powder  
1 Bottle @ 7.5 ml liquid (8 g), accessories

Shade A1	REF 520030
Shade A2	REF 520031
Shade A3	REF 520032
Shade A3.5	REF 520033
Shade A4	REF 520034

Refill pack: 1 Bottle @ 15 g powder, accessories

Shade A1	REF 520035
Shade A2	REF 520036
Shade A3	REF 520037
Shade A3.5	REF 520038
Shade A4	REF 520039
1 Bottle @ 7.5 ml liquid (8 g)	REF 520040

### DeltaFil Conditioner

Pack: 1 Bottle @ 7.7 ml (8 g) REF 520020

Accessories: 1 Applicap Dispenser REF 509344

**DMG**

**Chemisch-Pharmazeutische Fabrik GmbH**

Elbgaustraße 248 22547 Hamburg Germany

Fon: +49. (0) 40. 84 006-0 Fax: +49. (0) 40. 84 006-222

info@dmg-dental.com www.dmg-dental.com

www.facebook.com/dmgdental

