

GLUMA®

FAQs

FAQs

GLUMA Desensitizer

Giving a hand to oral health.



KULZER
MITSUI CHEMICALS GROUP

01

Application

For which indications can GLUMA Desensitizer be used?

GLUMA Desensitizer is indicated to reduce or even eliminate pain in exposed cervical areas not requiring restoration and to alleviate or prevent dentinal sensitivity after preparation of teeth to receive indirect or direct restorations.

Can GLUMA Desensitizer be used in combination with dental adhesive techniques?

GLUMA Desensitizer is indicated to alleviate or prevent dentinal sensitivity after preparation of teeth to receive indirect or direct restorations. It is compatible with dental adhesives and adhesive resin-based luting materials. The use of GLUMA Desensitizer may contribute to the preservation of adhesive interfaces by its cross-linking and inhibitory properties of endogenous dentin MMPs ^a. In combination with adhesives used in total etch or selective enamel etching technique, GLUMA Desensitizer should be applied after phosphoric acid etching. In case of self-etch adhesives, GLUMA Desensitizer is to be applied prior to the adhesive.

How long is the application time of GLUMA Desensitizer?

A minimal amount of GLUMA Desensitizer should be gently massaged on the dentine for approx. 30 to 60 seconds. Then the surface should be carefully dried in an air stream until the liquid film has disappeared and the surface is no longer shiny, then it should be rinsed with plenty of water under suction.

Why does GLUMA Desensitizer need to be rinsed off?

GLUMA Desensitizer is used for the treatment of dentine. It contains glutardialdehyde. To avoid irritation of oral soft tissues, GLUMA Desensitizer must never touch soft tissue and must be rinsed off with plenty of water by the dental health care professional. Mucous membranes should be protected by rubber dam.

Please consult the instruction for use.

Why does GLUMA Desensitizer need to be air-dried prior to rinsing off?

After application on the hypersensitive tooth area, GLUMA Desensitizer needs to be air-dried. This step increases the desensitizing effect. Afterwards, the desensitizer needs to be rinsed off using plenty of water by the dentist/dental assistant.

Why is rubber dam recommended for the application of GLUMA Desensitizer?

GLUMA Desensitizer contains glutardialdehyde. This agent is effective in the coagulation of proteins, providing the desired result within the dentine tubules. However, it also reacts with oral soft tissue when it comes in contact with gingiva or mucosa. This may cause temporary local irritations or necrosis of the soft tissue. To avoid any contact with oral soft tissue, rubber dam needs to be applied.

Please consult the instruction for use.

What happens if GLUMA Desensitizer is accidentally light-cured?

Light-curing does not affect GLUMA Desensitizer. GLUMA Desensitizer does not contain photocuring ingredients.

^a Sabatini C *et al.*: Inhibition of endogenous human dentin MMPs by Gluma. Dental Mat 30, 2014: 752-8.

02 Efficacy

Has the efficacy of GLUMA Desensitizer been clinically demonstrated?

GLUMA Desensitizer is one of the most evaluated desensitizers worldwide: Numerous in-vivo studies^{1 to 18, 20, 22} have shown the efficacy of GLUMA Desensitizer.

Does GLUMA Desensitizer reduce dentine hypersensitivity immediately after application?

A reduction of dentine hypersensitivity directly after its application was clinically demonstrated⁴.

If a single application of GLUMA Desensitizer does not produce sufficient and sustained pain relief, the treatment can be repeated at the same or a subsequent appointment before alternative treatments are used.

How does GLUMA Desensitizer reduce dentine hypersensitivity?

GLUMA Desensitizer contains glutardialdehyde and hydroxyethyl-methacrylate. It achieves its effects by precipitation of plasma proteins, which reduces dentinal permeability and occludes the peripheral dentinal tubules. This inhibits the flow of fluid through the tubules which is the cause of sensitivity.

How long does the desensitizing effect of GLUMA Desensitizer last?

A published clinical study revealed a reduction of dentine hypersensitivity by GLUMA Desensitizer for at least 18 months. GLUMA Desensitizer was the only tested desensitizing agent that presented no increase in pain over the course of time, being considered as an effective and non-invasive treatment option⁴.

03 General

How long has GLUMA Desensitizer been on the market?

GLUMA Desensitizer was launched in 1997.

What is the pH value of GLUMA Desensitizer?

GLUMA Desensitizer has a pH value of about 3–4.

04 In-vivo studies

- 1 [Sivaramakrishnan G, Sridharan K](#): Fluoride varnish versus glutaraldehyde for hypersensitive teeth: a randomized controlled trial, meta-analysis and trial sequential analysis. Clin Oral Investig. 2018 Apr 2. doi: 10.1007/s00784-018-2428-8. [Epub ahead of print]
- 2 [Hajizadeh H, Nemati-Karimooy A, Majidinia S, Moeintaghavi A, Ghavam-nasiri M](#): Comparing the effect of a desensitizing material and

a self-etch adhesive on dentin sensitivity after periodontal surgery: a randomized clinical trial. Restor Dent Endod. 2017 Aug;42(3):168-175. doi: 10.5395/rde.2017.42.3.168. Epub 2017 Jul 21.

- 3 [Idon PI, Esan TA, Bamise CT](#): Efficacy of Three In-Office Dentine Hypersensitivity Treatments. Oral Health Prev Dent. 2017;15(3):207-214. doi: 10.3290/j.ohpd.a38523.

- 4 **Lopes AO, de Paula Eduardo C, Aranha ACC:** Evaluation of different treatment protocols for dentin hypersensitivity: an 18-month randomized clinical trial. *Lasers Med Sci.* 2017 Jul;32(5):1023-1030.
- 5 **Kara HB, Cakan U, Yilmaz B, Inan Kurugol P:** Efficacy of Diode Laser and Gluma on Post-Preparation Sensitivity: A Randomized Split-Mouth Clinical Study. *J Esthet Restor Dent.* 2016 Nov 12;28(6):405-411.
- 6 **Samuel SR, Khatri SG, Acharya S, Patil ST:** Evaluation of instant desensitization after a single topical application over 30 days: a randomized trial. *Aust Dent J.* 2015 Sep;60(3):336-42. doi: 10.1111/adj.12341. Epub 2015 Jul 24.
- 7 **Patil SA, Naik BD, Suma R:** Evaluation of three different agents for in-office treatment of dentinal hypersensitivity: a controlled clinical study. *Indian J Dent Res.* 2015 Jan-Feb;26(1):38-42.
- 8 **Samuel SR, Khatri SG, Acharya S:** Clinical Evaluation of self and professionally applied desensitizing agents in relieving dentin hypersensitivity after a single topical application: A Randomized Controlled Trial. *J Clin Exp Dent.* 2014 Oct 1;6(4):e339-43.
- 9 **Ding YJ, Yao H, Wang GH, Song H:** A randomized double-blind placebo-controlled study of the efficacy of Clinpro XT varnish and Gluma dentin desensitizer on dentin hypersensitivity. *Am J Dent.* 2014 Apr;27(2):79-83.
- 10 **Lopes AO, Eduardo Cde P, Aranha AC:** Clinical evaluation of low-power laser and a desensitizing agent on dentin hypersensitivity. *Lasers Med Sci.* 2015 Feb;30(2):823-9.
- 11 **Lopes AO, Aranha AC:** Comparative evaluation of the effects of Nd:YAG laser and a desensitizer agent on the treatment of dentin hypersensitivity: a clinical study. *Photomed Laser Surg.* 2013 Mar;31(3):132-8.
- 12 **Ehlers V, Ernst CP, Reich M, Kämmerer P, Willershausen B:** Clinical comparison of gluma and Er:YAG laser treatment of cervically exposed hypersensitive dentin. *Am J Dent.* 2012 Jun;25(3):131-5.
- 13 **Brahmbhatt N, Bhavsar N, Sahayata V, Acharya A, Kshatriya P:** A double blind controlled trial comparing three treatment modalities for dentin hypersensitivity. *Med Oral Patol Oral Cir Bucal.* 2012 May 1;17(3):e483-90.
- 14 **Sethna GD, Prabhuji ML, Karthikeyan BV:** Comparison of two different forms of varnishes in the treatment of dentine hypersensitivity: a subject-blind randomised clinical study. *Oral Health Prev Dent.* 2011;9(2):143-50.
- 15 **Yu X, Liang B, Jin X, Fu B, Hannig M:** Comparative in vivo study on the desensitizing efficacy of dentin desensitizers and one-bottle self-etching adhesives. *Oper Dent.* 2010 May-Jun;35(3):279-86.
- 16 **Aranha AC, Pimenta LA, Marchi GM:** Clinical evaluation of desensitizing treatments for cervical dentin hypersensitivity. *Braz Oral Res.* 2009 Jul-Sep;23(3):333-9.
- 17 **Ozen T, Orhan K, Avsever H, Tunca YM, Ulker AE, Akyol M:** Dentin hypersensitivity: a randomized clinical comparison of three different agents in a short-term treatment period. *Oper Dent.* 2009 Jul-Aug;34(4):392-8.
- 18 **Jalalian E, Meraji N, Mirzaei M:** A comparison of the efficacy of potassium nitrate and Gluma desensitizer in the reduction of hypersensitivity in teeth with full-crown preparations. *J Contemp Dent Pract.* 2009 Jan 1;10(1):66-73.
- 19 **de Assis Cde A, Antoniazzi RP, Zanatta FB, Rösing CK:** Efficacy of Gluma Desensitizer on dentin hypersensitivity in periodontally treated patients. *Braz Oral Res.* 2006 Jul-Sep;20(3):252-6.
- 20 **Kakaboura A, Rahiotis C, Thomaidis S, Doukoudakis S:** Clinical effectiveness of two agents on the treatment of tooth cervical hypersensitivity. *Am J Dent.* 2005 Aug;18(4):291-5.
- 21 **Sobral MA, Garone-Netto N, Luz MA, Santos AP:** Prevention of postoperative tooth sensitivity: a preliminary clinical trial. *J Oral Rehabil.* 2005 Sep;32(9):661-8.
- 22 **Duran I, Sengun A:** The long-term effectiveness of five current desensitizing products on cervical dentine sensitivity. *J Oral Rehabil.* 2004 Apr;31(4):351-6.

Contact in Germany

Kulzer GmbH
 Leipziger Straße 2
 63450 Hanau
 Germany
 info.dent@kulzer-dental.com