FAQs

GLUMA Desensitizer & GLUMA Desensitizer PowerGel

Giving a hand to oral health.
**Application**

For which indications can GLUMA Desensitizer and GLUMA Desensitizer PowerGel be used?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel are indicated for the treatment of hypersensitive dentine. They eliminate pain in exposed cervical areas which do not require restoration, and alleviate or prevent dentinal sensitivity after preparing the teeth to receive direct or indirect restorations.

When does GLUMA Desensitizer or GLUMA Desensitizer PowerGel need to be applied in combination with a dental adhesive?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel are suitable prior to the placement of direct and indirect restorations. Both desensitizers function solely within the dentinal tubuli. Thus, they do not interfere with dental adhesives nor adhesive resin-based luting materials.

In combination with adhesives used in total etch or selective enamel etching technique, GLUMA Desensitizer or GLUMA Desensitizer PowerGel should be applied after phosphoric acid etching.

In case of self-etch adhesives, GLUMA Desensitizer or GLUMA Desensitizer PowerGel are to be applied prior to the adhesive.

How long is the application time of GLUMA Desensitizer and GLUMA Desensitizer PowerGel?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel should be left on the dentine for 30-60s. Afterwards, they need to be rinsed off with plenty of water.

GLUMA Desensitizer PowerGel contains pigments. Will it stain the tooth?

GLUMA Desensitizer PowerGel contains pigments to ease its application. It does not stain the tooth if it dwells on the tooth for a maximum of 60s. Moreover, it needs to be rinsed off with plenty of water.
Is GLUMA Desensitizer/GLUMA Desensitizer PowerGel compatible with dental adhesives and resin-based luting cements?

Various studies have confirmed that GLUMA Desensitizer and GLUMA Desensitizer PowerGel are fully compatible with dental adhesives and luting cements. The bond strength of these materials to the tooth remains on the same level irrespective of whether GLUMA Desensitizer/GLUMA Desensitizer PowerGel is previously applied on the dentine or not. Some other desensitizing products act only at the tooth surface. This may decrease bond strength to adhesives or cements applied afterwards. GLUMA Desensitizer and GLUMA Desensitizer PowerGel do not interfere with these adhesive materials because they work within the dentinal tubuli.

Why do GLUMA Desensitizer and GLUMA Desensitizer PowerGel need to be rinsed off?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel contain glutardialdehyde. This substance is responsible for the effective reduction of dentine hypersensitivity. It is a highly reactive agent able to coagulate proteins. This effect is desired within the dentine tubuli but not on the gingiva and mucosa. We therefore strongly recommend the use of rubber dam. To avoid irritation of oral soft tissues, GLUMA Desensitizer and GLUMA Desensitizer PowerGel must never touch soft tissue and must be rinsed off with plenty of water by the dentist/dental assistant.

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

After application on the hypersensitive tooth area, GLUMA Desensitizer/GLUMA Desensitizer PowerGel 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 and GLUMA Desensitizer PowerGel?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel contain glutardialdehyde. This agent is very effective in the coagulation of proteins, providing the desired result within the dentine tubuli. 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.
What happens if GLUMA Desensitizer or GLUMA Desensitizer PowerGel are accidentally light-cured?

Light-curing does not affect GLUMA Desensitizer and GLUMA Desensitizer PowerGel. Both desensitizers do not contain photocuring ingredients.

What should I use to apply the GLUMA Desensitizer PowerGel?

The flocked syringe nozzle is ideally suited for applying and distributing the gel on the tooth surface. A more precise application can be achieved by applying the gel with a dental probe.

Watch our video to see how GLUMA Desensitizer works:

Efficacy

Have GLUMA Desensitizer and GLUMA Desensitizer PowerGel been clinically tested?

GLUMA Desensitizer is one of the most evaluated desensitizers worldwide: at least 34 clinical patient studies were done on the performance of GLUMA Desensitizer and numerous in-vitro investigations. (You will find a list of these studies at the end of this document.)

Do GLUMA Desensitizer and GLUMA Desensitizer PowerGel reduce dentine hypersensitivity immediately after application?

Several clinical studies demonstrated a minimisation of the dentine hypersensitivity directly after its application\(^2\). Its full effect will occur after some minutes to hours once the reaction of GLUMA Desensitizer and GLUMA Desensitizer PowerGel with the proteins of the dentine liquor is completed. In some cases, a repeated application of GLUMA Desensitizer or GLUMA Desensitizer PowerGel may be necessary.

How do GLUMA Desensitizer and GLUMA Desensitizer PowerGel reduce dentine hypersensitivity?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel contain glutardialdehyde and HEMA ((2-Hydroxyethyl)methacrylate). HEMA enables glutardialdehyde to penetrate up to 200µm into the dentine tubuli\(^3\). Inside the tubuli, glutardialdehyde reacts with the proteins present in the dentine liquor. The proteins precipitate and form protein plugs which close the dentine tubuli. This protein coagulation leads to the polymerisation of HEMA\(^4\). Because of these coagulated proteins (protein septa), the permeability of the dentine is significantly reduced\(^5\) and movements of dentine liquor inside the tubuli or other stimulating effects are lessened. GLUMA Desensitizer and GLUMA Desensitizer PowerGel function within the dentine tubuli and therefore do not interfere with adhesive treatments. They do not create a layer on the dentine surface.

Other studies have shown further benefits from glutardialdehyde. It inhibits enzymes (MMPs) within the dentine that degrade the hybrid layer of adhesives over time\(^6\). Apart from this, glutardialdehyde has also demonstrated its potential for cavity disinfection\(^7\). Last but not least, it increases the strength of the dentine and may lead to more durable bonding\(^8\).
How long does the desensitizing effect of GLUMA Desensitizer/GLUMA Desensitizer PowerGel last?

A recently published clinical study revealed a reduction of dentine hypersensitivity by GLUMA Desensitizer for at least 18 months\(^9\). GLUMA Desensitizer was the only tested desensitizing treatment that did not show an increase in pain during the 18 months study observation period.

How efficient are GLUMA Desensitizer/GLUMA Desensitizer PowerGel compared to other desensitizing methods?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel have demonstrated their long-term effectiveness of up to 18 months in various clinical studies\(^10\). Both GLUMA Desensitizers are fast and non-invasive. They should only be applied by dentists, though, as they are not intended for use by the patients. They do not interfere with other treatments (e. g. following adhesive treatments) compared to other desensitizing treatments (e.g. desensitizers based on oxalates\(^11,12\)). GLUMA Desensitizer and GLUMA Desensitizer PowerGel are more effective than desensitizers based on an oxalate or calcium phosphate chemistry\(^13,14,15\).

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\(^{13}\) Sabatini C et al.: Inhibition of endogenous human dentin MMPs by Gluma. Dental Mat 30, 2014: 752-8.

\(^{14}\) Felton D et al.: Inhibition of bacterial growth under composite restorations following GLUMA pretreatment. JDR, 68 (3), 1989: 491-5.


Differentiation

What is the difference between GLUMA Desensitizer and GLUMA Desensitizer PowerGel?

The desensitizing ingredients of GLUMA Desensitizer and GLUMA Desensitizer PowerGel are the same. The differences between both desensitizers lie in the consistency and the colour. GLUMA Desensitizer is a clear liquid whereas GLUMA Desensitizer PowerGel is a greenish gel. The gel product might be easier to control because of its colour and consistency. The long-term efficacy of both products is similar.

In what packaging are GLUMA Desensitizer and GLUMA Desensitizer PowerGel available?

GLUMA Desensitizer is available in 5ml bottle and single dose for one application. GLUMA Desensitizer PowerGel is available in 1g syringe.

General

How long have GLUMA Desensitizer and GLUMA Desensitizer PowerGel been on the market?

GLUMA Desensitizer has been launched in 1992. GLUMA Desensitizer PowerGel followed in 2011. We estimate that GLUMA Desensitizer has been applied on teeth about 45 million times and that 34 studies have been carried out on GLUMA Desensitizer. (You will find a list of these studies at the end of this document.)

What are the pH values of GLUMA Desensitizer and GLUMA Desensitizer PowerGel?

GLUMA Desensitizer and GLUMA Desensitizer PowerGel both have a pH value of 3-4.
In-vitro studies


