Gingiva Solution

SR Nexco®

ivoclar vivadent®
passion vision innovation

Gingiva Solution –
Prosthetic gingiva manual

Natural-looking restorations

High-quality lab-fabricated dental restorations are characterized by a natural appearance as well as high biocompatibility and hygiene capability. Special emphasis is placed on achieving "white esthetics" as this is decisive for the patient's positive perception of the prosthetic restoration and the overall treatment success.

As the number of extensive restorations is increasing, the reconstruction of missing gingiva in a natural-looking manner based on the principles of "pink esthetics" is becoming more and more important. The colour, shape and texture of the patient's gumline need to be faithfully reproduced and individual requirements taken into account.

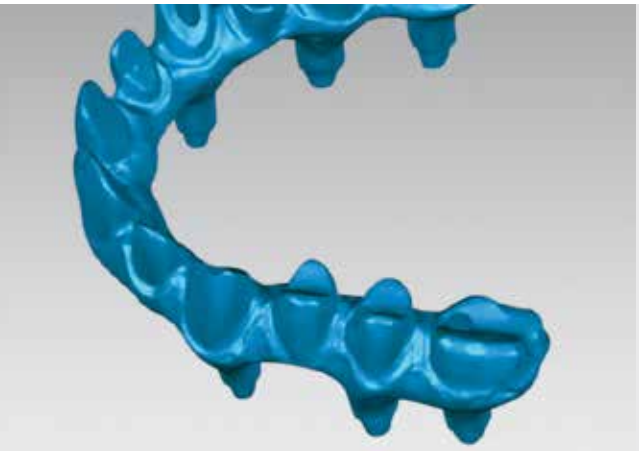
This manual illustrates how to successfully fabricate prosthetic gingival restorations. The fabrication of a metal-supported restoration for a middle-aged patient is shown in detail using the light-curing lab composite SR Nexco. Special focus is placed on showing how to reconstruct the different gingival areas.

Further publications provide guidance on the fabrication of prosthetic gingiva taking age-related and ethnic aspects into account by using different products and materials. Ivoclar Vivadent's well-coordinated range of products affords a suitable solution for every case.

Framework design

Full-contour wax-up of the planned restoration

Framework modelled in resin



Digital view of the upper framework

Completed framework

In the fabrication of high-quality implant restorations, a precise, full-contour wax-up needs to be created. It allows the appropriate dimensions to be transferred to the framework, which may be made of alloy, titanium or zirconium oxide and represents the basis for the veneering procedure.

Dental veneering

The cervical areas are created using Margin material.

Customization of the veneer

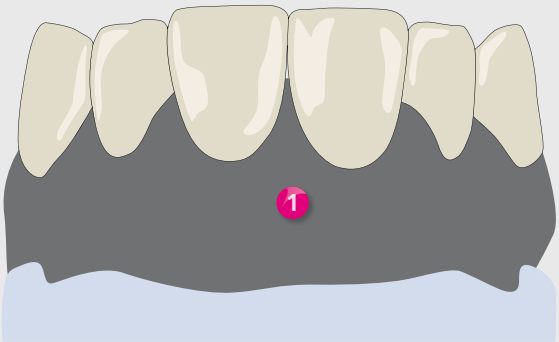
Dentin build-up

The build-up is completed with different Incisal / Effect materials.

The full-contour wax-up serves as the basis for the planning and fabrication of the veneer. Other than the application of individual characterizations, the fabrication of the veneers is based on customary biomechanical principles.

Gingival veneering

Completed, unpolished dental veneer

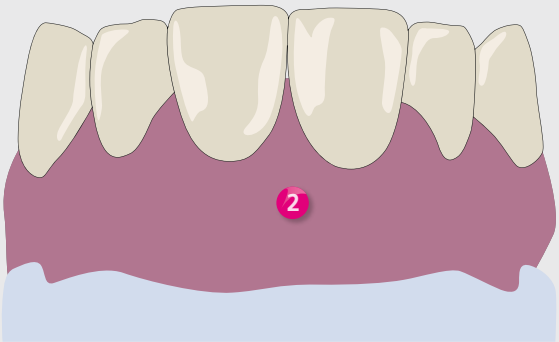


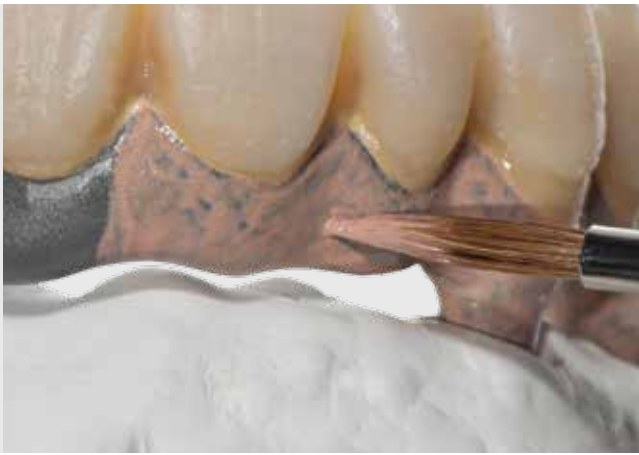
1 Metal/resin bonding agent

Preparation

The metal components to be veneered with Gingiva material are blasted with 80–100 µm Al_2O_3 (at 2–3 bar/29–44 psi) and wetted with SR Link bonding agent. This creates an optimum bond between the metal and the composite resin.

Gingival veneering



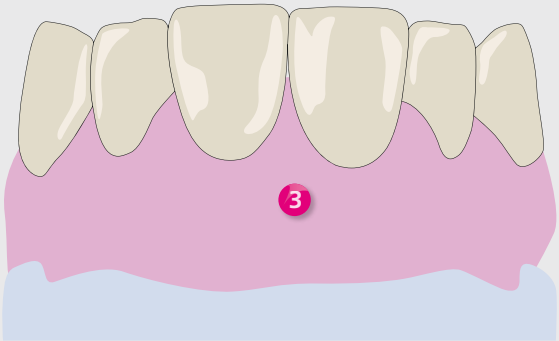


2 The metal base has been completely masked with Gingiva opaquer.

Application of opaquer

Two thin coats of Gingiva opaquer are applied. In a first step, a thin "wash" layer of opaquer is applied. After the wash opaquer layer has been polymerized, a second, covering layer of opaquer can be applied and polymerized.

Gingival veneering

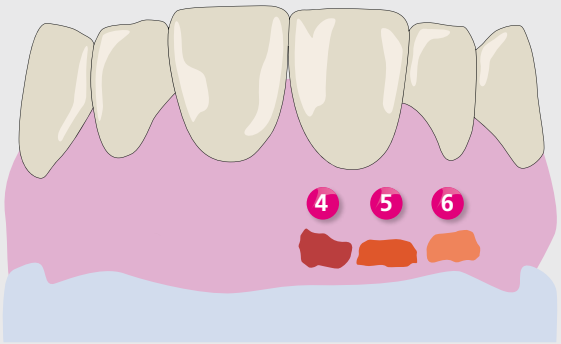


3 Basic Gingiva BG34

Application of Basic Gingiva

To obtain an idea of the final outline of the prosthetic work, the gingiva to be reconstructed is shaped roughly by gradually applying Basic Gingiva BG34.

Gingival veneering



4 Intensive Gingiva IG1

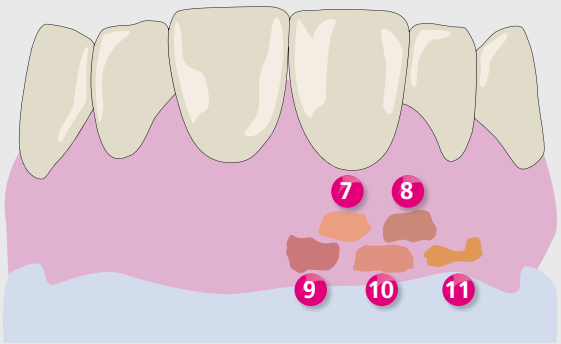
5 Intensive Gingiva IG2

6 Intensive Gingiva IG4

Mobile mucosa

The transition from the immobile to the mobile mucosa is simulated by applying different Intensive Gingiva materials. As the vessels and muscles are well supplied with blood in this area, the tissue appears darker.

Gingival veneering



7 Gingiva G1

8 Gingiva G2

9 Gingiva G3

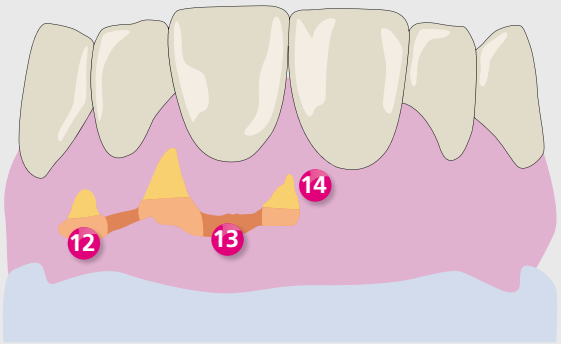
10 Gingiva G4

11 Gingiva G5

Mobile mucosa

More translucent Gingiva shades applied to the darker areas of the gingiva create a depth effect which is essential to attain natural-looking gingival esthetics.

Gingival veneering



12 Basic Gingiva BG34

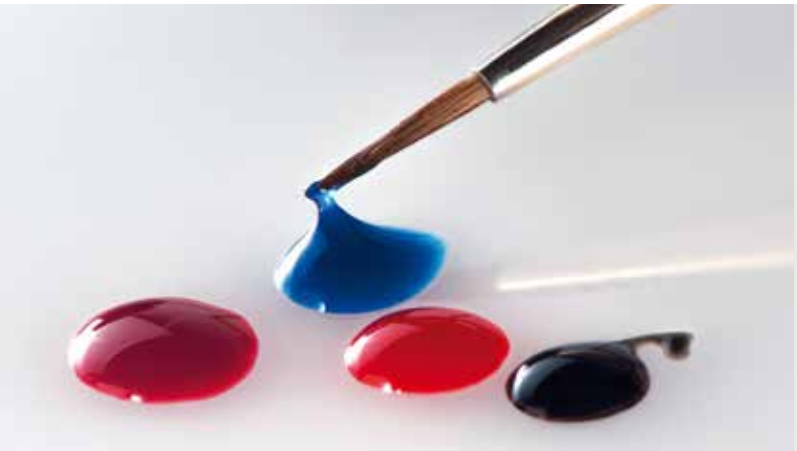
13 Intensive Gingiva IG3

14 Intensive Gingiva IG5

Immobile mucosa

The immobile mucosa sits directly on the jawbone. The alveolar tubercle and the interstitial spaces are therefore clearly visible. If desired or indicated by an individual model, Intensive Gingiva shades are applied individually or combined to achieve an appropriate shade effect.

Gingival veneering



Fine characterization

Individual characterizations (e.g. to simulate blood vessels) can be added using stains. They are processed in the same way as the Gingiva materials. The stains must be covered with a thin layer of Gingiva G1 and Gingiva G2.

Gingival veneering

Final polymerization

Before final polymerization, a covering but not too thick a layer of SR Gel is applied to the completed gingival portions. This prevents the formation of an inhibition layer.

Finising and polishing

Cross-cut tungsten carbide burs are used for shape adjustments.

Applying "dimpled skin" surface texture

Instruments set

Polishing with Universal Polishing Paste

Finishing and final polishing is performed with customary instruments. A very natural-looking shine is achieved with Universal Polishing Paste.

Final results

Final results

Dental-lab work: MDT Thorsten Michel, Schorndorf,Germany

Product information

SR Nexco Paste is a purely light-curing laboratory composite with micro-opal fillers, suitable for framework-supported and framework-free prosthetic restorations. As the desired shades can be reproduced regardless of the layer thickness, a true-to-nature appearance can be achieved for fixed and removable dental restorations, even with artificial gingiva.

The Gingiva materials of the SR Nexco range can be applied to metal frameworks and PMMA-based denture bases. A light-curing opaquer (pink) is available for masking metal structures. The SR Nexco range comprises five patient-oriented Gingiva materials and five additional Intensive Gingiva shades. SR Nexco Paste Basic Gingiva is used as the basis for creating customized shades. It is also used in combination with denture base materials.

SR Nexco Paste Polymerization Table

Appliance	Manufacturer	Opaquer*	Dentin**	Liner, Incisal, Effect**, Margin**	Gingiva**	Stains***	SR Connect	Final polymerization
Quick Lumamat 100	Ivoclar Vivadent AG	20 s Quick P2 / 11 min	20 s Quick	20 s Quick	20 s Quick	20 s Quick	P2 / 11 min	P2 / 11 min
Spectramat	Ivoclar Vivadent AG	5 min	5 min	2 min	5 min	2 min	2 min	5 min
Labolight LV-III	GC	5 min	2 min	2 min	5 min	2 min	3 min	5 min
Solidilite V	Shofu	3 min	1 min	1 min	3 min	1 min	3 min	5 min
Visio Beta Vario	3M Espe	7 min no vacuum	4 x 20 s Visio Alfa	4 x 20 s Visio Alfa	4 x 20 s Visio Alfa	4 x 20 s Visio Alfa	4 x 20 s Visio Alfa	2 x 7 min no vacuum
HiLite	Heraeus	180 s	90 s	90 s	90 s	90 s	90 s	180 s

Important information:
Indications based on tests conducted by R&D, Ivoclar Vivadent Schaan, Liechtenstein. The indications are without obligation and do not exempt the user from observing the recommended polymerization times for the different polymerization units according to the respective manufacturer's directions. Regular maintenance and functional checks of the polymerization units are also required.

Note:
Polymerization units suitable for pre-curing: Quick (Ivoclar Vivadent AG), HiLite pre (Heraeus), Visio Alfa (3M), Sublite V (Shofu), Steplight SL-I (GC)

* The first opaquer layer is applied thinly and pre-cured. Then a second, covering layer is applied and cured according to the polymerization table.
** The maximum layer thickness must be observed! If necessary, pre-curing must be performed.
*** Stains should only be applied in very thin layers – only a shallow depth of cure is achieved in conjunction with dark shades.

Please observe the corresponding Instructions for Use.

SR Link

2 x Opaquer

Removal of the inhibition layer

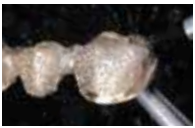
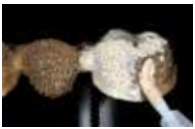
Basic Gingiva

Gingiva and Intensive Gingiva

SR Gel

Finishing

Polishing

	Al_2O_3, 80-100 µm, 2-3 bar (29-44 psi) SR Link 
	2x Opaquer
	Removal of the inhibition layer
	Stains + Dentin
	Incisal + Effect Shades
	SR Gel
	Finishing
	Polishing

656243/en/2013-09-16

www.ivoclarvivadent.com

Ivoclar Vivadent AG
Bendererstr. 2 | 9494 Schaan | Liechtenstein | Tel.: +423 / 235 35 35 | Fax: +423 / 235 33 60

ivoclar vivadent®
passion vision innovation