

Gingiva Solution

SR Phonares® II, IvoBase®, SR Nexco®

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Gingiva Solution –
Prosthetic gingival reconstruction 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" because this is decisive for the patient's positive perception of the prosthetic restoration and the overall treatment success.

As the number of large 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 creation of a metal-supported restoration for a middle-aged patient is shown in detail using SR Nexco®, the light-curing lab composite. Special focus is placed on showing how to reconstruct the different gingival areas.

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



Framework design



Verification of the position of the primary structure



Completed primary structure



Galvano-formed caps with acrylic resin secondary structure



Completed metal framework showing passive fit

Framework design

The fabrication process of any high-quality implant restoration begins with a functional set-up. This provides a functional and esthetic basis for the creation of further structures.

Framework preparation



Clean metal framework after blasting with aluminium oxide



Application of SR Link to establish a bond with metal



Application of the first opaquer layer (wash)



Application of the second, full-coverage opaquer layer

Conditioning of the framework

The metal components are blasted with 80 to 100 μm aluminium oxide (2–3 bar) and wetted with SR Link bonding agent. In a first step, Gingiva Opaquer is applied as a thin wash layer. After the first layer has been polymerized, a second covering layer of opaquer is applied and polymerized. Next, the inhibition layer is removed for further processing.

Finishing of the denture base



The teeth reduced on the palatal and occlusal surface are set up in wax.



Restoration in the flask, ready for the injection of denture base material



Palatal shade modification of an anterior tooth



Occlusal characterization of posterior teeth

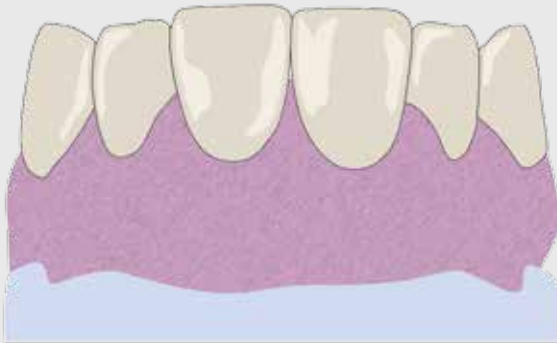
Tooth modification

The shade can be adjusted slightly without having to change the fine labial structure. The tooth which has been ground on the palatal side is carefully blasted with aluminium oxide. Next, a thin layer of SR Connect is applied. This bonding agent is allowed to react for three minutes. Subsequently, the shape is built up with SR Nexco materials. The same procedure is used for the occlusal modifications. Detailed information concerning the minimal thickness of the material and the polymerization procedure is provided in the Instructions for Use.

Gingival modification



Completed denture – ready for gingival modification



1 PMMA / Composite bonding agent



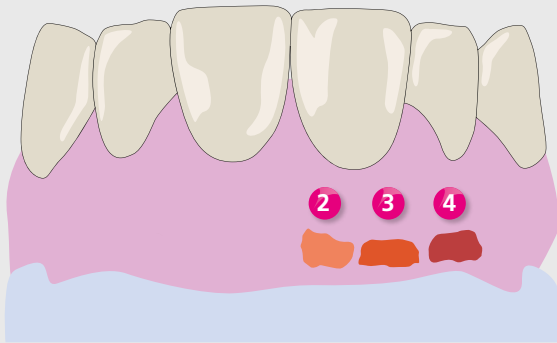
Preparation

The denture base material is blasted with aluminium oxide (80–100 μm) at 2 to 3 bar pressure and then wetted with SR Connect bonding agent. After a reaction time of three minutes, the bonding agent is polymerized with light.

Gingival modification



Modification of the colour of the mobile mucosa



2 Intensive Gingiva IG1 3 Intensive Gingiva IG2 4 Intensive Gingiva IG4



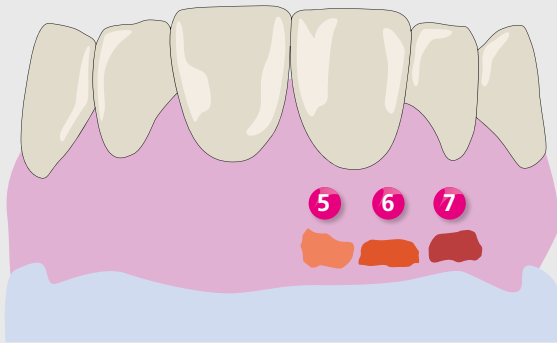
Mobile mucosa

The transition between the immobile and 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 modification



Modification of the immobile mucosa



5 Gingiva G1



6 Gingiva G4



7 Intensive Gingiva IG4 / Intensive Gingiva IG3 in a ratio of 1:5



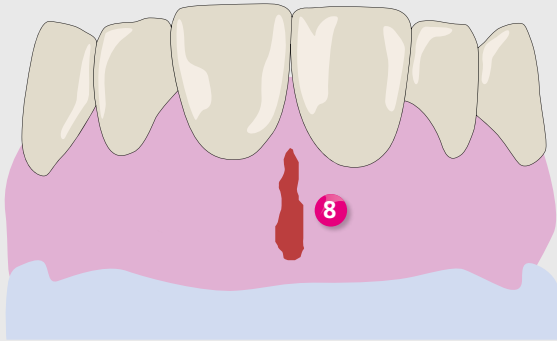
Immobile mucosa

The alveolar parts of the immobile mucosa and the cervical structures can be imitated with lighter, translucent materials. The colour of the alveolar mucosa in particular can be effectively adjusted with the newly formulated IG5 "vanilla" shades to achieve a natural-looking appearance.

Gingival modification



The characteristic lip frenulum is imitated.



8 Gingiva G1 / Intensive Gingiva IG3 in a ratio of 2:1



Lip frenulum

In the case presented, the lip frenulum was created with a mixture of G1 and IG3 in a ratio of 2:1. It goes without saying that other materials can also be used to produce this feature, depending on the situation.

Gingival modification





Fine characterization

Various stains are available for fine characterization purposes. They can either be mixed with an existing material or applied in pure form before polishing.

Gingival modification





Final polymerization

Before final polymerization, a covering layer of SR Gel is applied. This layer, which should not be too thick, will prevent the formation of an inhibition layer.

Finishing and polishing



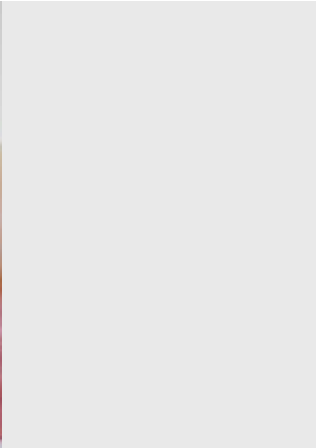


Completion

Finishing is done with fine cross-cut burs. The final polish is given with goat's hair brushes and a cotton buffing wheel. The restorations are finished and polished without applying any pressure. The aim is to imitate the natural "dimpled" surface texture of the gingiva. A very natural-looking gloss is achieved with the Universal Polishing Paste.

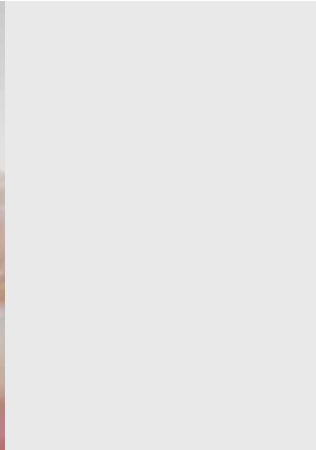
Final results





Final results



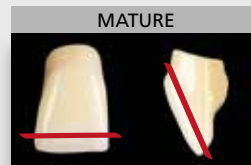


The dental lab work presented was accomplished by Thorsten Michel, MDT, from Schorndorf / Germany.

Product information

SR Phonares® II – Natural-looking tooth moulds for sophisticated needs

The SR Phonares II tooth moulds have been designed for maximum beauty and vitality in the anterior region. These teeth look as vibrant as their natural counterparts, and they open up exceptional possibilities in the creation of true-to-nature restorations.





SR Phonares® II Typ

A classic denture tooth for partial and complete dentures



SR Phonares® II Lingual

This posterior tooth for the lingualized occlusion scheme is predominantly used in hybrid and implant prosthetics.

The tooth shades are precisely matched to the lab composite SR Nexco to facilitate the restorative procedures in combined prosthetics.

Product information

SR IvoBase® System – The innovative denture base

The denture base system which offers fully automatic, precision polymerization. All the components of the IvoBase System are completely compatible. As a result, denture bases show outstanding accuracy of fit and precision. The low standard residual monomer content of IvoBase is at the level of heat-curing materials. When the RMR function is activated the residual monomer content clearly falls below this critical value to less than one percent.





IvoBase® Material – One system, two types of material

IvoBase Hybrid is a good all-rounder characterized by short processing times.

The salient feature of **IvoBase High Impact** is its high fracture toughness. Therefore, this material is suitable for the fabrication of structures that are exposed to heavy loading. The colouring of IvoBase High Impact Shade 34V corresponds to that of SR Nexco Basic Gingiva BG34.



IvoBase® Injector – Fully automatic and without steam

PMMA resins are injected and polymerized automatically in the IvoBase Injector. The chemical polymerization shrinkage of the resins is entirely compensated during the polymerization process.

Product information

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



Gingiva
Opaquer



pink

Basic
Gingiva



BG34

Gingiva



G1

G2

G3

G4

G5

Intensive
Gingiva



IG1

IG2

IG3

IG4

IG5

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.

Gingival modification



SR Link



2x Opaquer



Removal of the inhibition layer



Gingiva & Intensive Gingiva



SR Gel



Finishing



Polishing

Gingival veneering



SR Link



2x Opaquer



Removal of the inhibition layer



Basic Gingiva



Gingiva & Intensive Gingiva



SR Gel



Finishing



Polishing

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