SR PHONARES®

MODERN MASTERPIECES

TECHNICAL DOCUMENTATION

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passion vision innovation

SR PHONARES®

Removable denture prosthetics is increasingly directed towards meeting the requirements of patients with sophisticated expectations.

The requirements and expectations of these patients go beyond the restoration of basic oral functions, such as chewing efficiency. Individualized esthetics plays an increasingly important role.

The SR PHONARES line of denture teeth offers an exceptionally high degree of durability as these teeth are based on a **n**ano-**h**ybrid **c**omposite (**NHC**) material.
The tooth moulds are shaped according to age-specific characteristics, allowing the fabrication of highly individualized dental prostheses.

The SR PHONARES line offers dental technicians, prosthetists and dentists a new generation of denture teeth, designed to optimally meet the individual requirements of patients. This documentation offers guidelines for the application of SR PHONARES teeth, helping users to achieve an optimum level of function and esthetics.

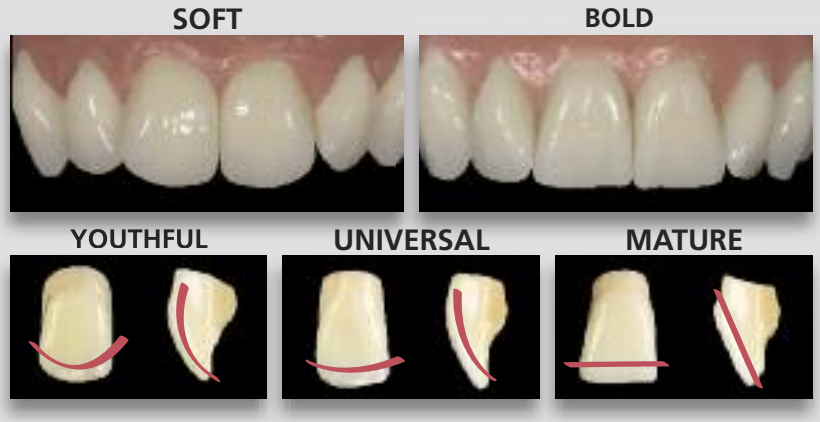
SR PHONARES® NHC

Impressive esthetic qualities
- Unparalleled surface texture

User-friendly and convenient
- Easy setup of anterior teeth due to proximal "Set & Fit" design
- Enhanced "white esthetics" due to specially designed interdental closures

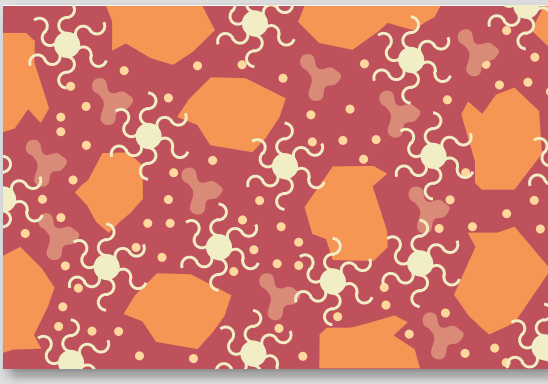
A range of tooth moulds designed to match the age and characteristics of the individual patient

- Two basic types
- Three different degrees of wear



Nano-hybrid composite

UDMA matrix
High-density silanized SiO_2
Inorganically filled UDMA polymer
Silanized SiO_2 nanoparticle
PMMA cluster



SR PHONARES® *Lingual* NHC

The lingualized occlusion of the SR PHONARES Lingual NHC tooth line offers an ideal occlusal scheme for removable dental prostheses, where positional stability is required (e.g. implant prosthetics).

SR PHONARES® *Typ* NHC

The SR PHONARES Typ NHC teeth are the classic denture teeth suitable for universal application in partial, complete and hybrid denture prosthetics.

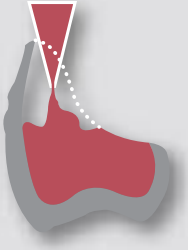
Innovative manufacturing

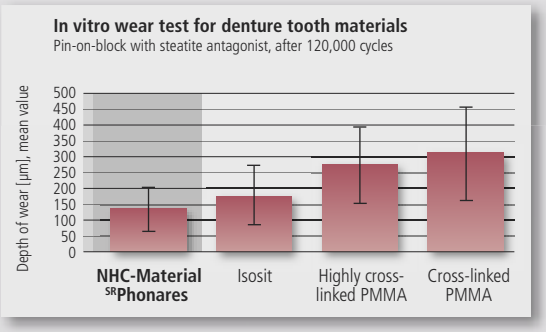
Cutting-edge advanced CAD/CAM technology provides:

- ideal symmetry in the anterior region
- symmetrical external geometry in the posterior region
- true-to-dimension enlargement of posterior teeth

Innovative advantages

- no production-related proximal flash
- consistent interdental contacts
- esthetic interdental design





Source: Dr. Dipl.-Ing. (FH) Martin Rosentritt, 08/2009, University of Regensburg, Germany

In addition to the shade, the shape (form) and size of anterior teeth should in particular be matched to the individual characteristics of the patient. The SR PHONARES NHC tooth line offers 18 upper and 4 lower tooth moulds for the anterior region.

If possible, the anterior teeth should be selected directly on the patient according to the patient's anatomical and facial characteristics. The following methods are recommended to facilitate the tooth selection procedure:

CHAIRSIDE

FormSelector

The PHONARES FormSelector allows fast, easy and targeted selection of the appropriate anterior tooth mould.

Step 1 Determine the interalar width of the nose with the help of the FacialMeter. Select an appropriately sized tooth mould from the INTER-ALA table.

Step 2 Select the desired tooth form, soft or bold, in line with the shape of the patient's face.

Step 3 Select the appropriate age group of the teeth according to the incisal wear and facial curvature characteristics of the SR PHONARES NHC teeth.

The FormSelector is based on the relationship between the interalar width of the nose and the width of the maxillary anterior arch. Alongside a few other selection criteria, the correlation between the interalar width and width of the anterior arch is based on the strongest scientific evidence amongst relevant measurements.

Mavroskoufis et al. (1980); Mavroskoufis et al. (1981)

LABSIDE

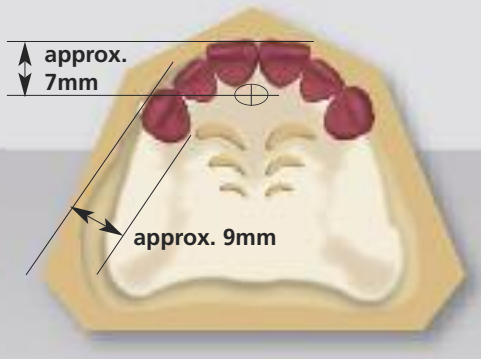
Model analysis

The following reference points are determined by analysing the model:

1] Position of the canines:
Determine the first large pair of rugae; the centre of the labial surface of the maxillary canine is positioned at a distance of 9mm.

2] Contact point of the two central incisors:
The labial surface of the central incisors is located at a distance of 7mm from the centre of the incisive papilla.

Based on the length of the curve passing through these three reference points, you can select an anterior set of appropriate width by means of the tooth mould chart.



It is advisable to use previous models or photographs of the patient as guides for designing the prosthetic reconstruction. In addition to the position of the teeth, the tooth shape can be adapted to the original appearance of the patient.

The size of the posterior teeth is selected in line with the anterior tooth moulds determined during the preceding stage. A variety of posterior tooth moulds are available to meet the specific requirements of individual indications and provide patients with dental prostheses that best meet their needs.

SR PHONARES*Typ* NHC

The SR PHONARESTyp NHC teeth are the classic denture teeth for:

- partial denture prosthetics,
- complete denture prosthetics
- hybrid denture prosthetics

SR PHONARES*Lingual* NHC

In addition to being suitable for universal applications, the SR PHONARESLingual NHC teeth are especially suited to meet the requirements of removable dental prostheses, where positional stability is required (e.g. implant prosthetics), as these teeth are based on a lingualized occlusal scheme.

Combination table of different tooth sizes

		SR **PHONARES** NHC upper	lower	SR **PHONARES** *Typ* NHC	SR **PHONARES** *Lingual* NHC
Small	Soft	S61	L50	NU3 / NL3	LU3 / LL3
		S71	L51	NU3 / NL3, NU5 / NL5	LU3 / LL3, LU5 / LL5
		S81	L50, L51	NU3 / NL3	LU3 / LL3, LU5 / LL5
	Bold	B61	L50, L51	NU3 / NL3	LU3 / LL3
		B71	L50, L51	NU3 / NL3, NU5 / NL5	LU3 / LL3
		B81	L50, L51	NU3 / NL3	LU3 / LL3
Medium	Soft	S62	L51	NU3 / NL3, NU5 / NL5	LU5 / LL5
		S72	L51, L53	NU5 / NL5	LU5 / LL5, LU6 / LL6
		S82	L51, L53	NU5 / NL5	LU5 / LL5, LU6 / LL6
	Bold	B62	L51, L53	NU3 / NL3, NU5 / NL5	LU5 / LL5, LU6 / LL6
		B72	L51	NU3 / NL3, NU5 / NL5	LU5 / LL5, LU6 / LL6
		B82	L51, L53	NU3 / NL3, NU5 / NL5	LU3 / LL3, LU5 / LL5
Large	Soft	S63	L52, L53	NU5 / NL5	LU6 / LL6
		S73	L52	NU5 / NL5, NU6 / NL6	LU6 / LL6
		S83	L52, L53	NU5 / NL5, NU6 / NL6	LU6 / LL6
	Bold	B63	L52, L53	NU6 / NL6	LU6 / LL6
		B73	L52, L53	NU6 / NL6	LU6 / LL6
		B83	L52	NU5 / NL5, NU6 / NL6	LU6 / LL6

This combination table is recommended as a guideline. In case of particular anatomical conditions, deviations are possible.

SHADE SELECTION

Shade selection should be performed on the patient under defined light conditions (5500K colour temperature) or in daylight.

An accompanying shade guide is available to enable consistent shade selection in compliance with the A–D shade system.

The tooth samples of the SR PHONARES shade guide are based on the same layer structure and materials as the original SR PHONARES teeth. Shade deviations are therefore minimized. Shade selection may also be performed with the help of a Vitapan Classical Universal* shade guide.

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The transfer of the patient's jaw relations with the individually adjustable UTS 3D facebow is the first important factor in the creation of functional dentures. The accessories of the Stratos articulator range also allow average-value mounting of the casts.

The transfer of the patient specific jaw relations is essential to achieving functionally effective dentures.

INDIVIDUAL MODEL ORIENTATION

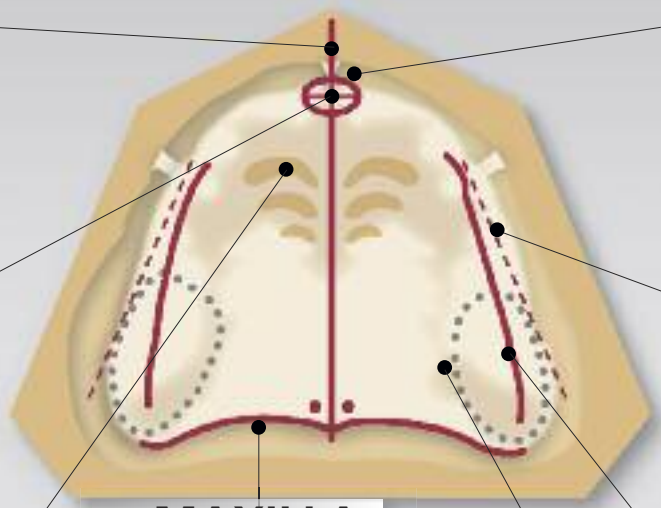
The UTS 3D transferbow is used for skull-related individual model orientation.

The Gnathometer M assists in the correct final recording of the relationship of the upper and lower jaw. A 3D setup template should be used for the setup in conjunction with skull-related model orientation.

AVERAGE-VALUE MODEL ORIENTATION

A horizontal guide is used to accomplish average-value orientation of the mandibular cast to the articulator.

We recommend using a 2D or 2½D template.



MAXILLA

Marking:
Raphe median plane
Relevance:
Reference plane to achieve transversal symmetry of the anterior tooth setup

Marking:
Deepest point of the vestibule
Relevance:
Starting point for measuring the vertical dimension and the incisal height of the central incisors

Marking:
Centre of the incisive papilla
Relevance:
- Anatomical midline of upper jaw
- Labial positioning of the central incisors at a distance of 7mm sagittally

Marking:
Buccal demarcation line
Relevance:
The line that extends from the outer margin of the tuberosity to the canine represents the buccal limitation for the setup of the posterior denture teeth

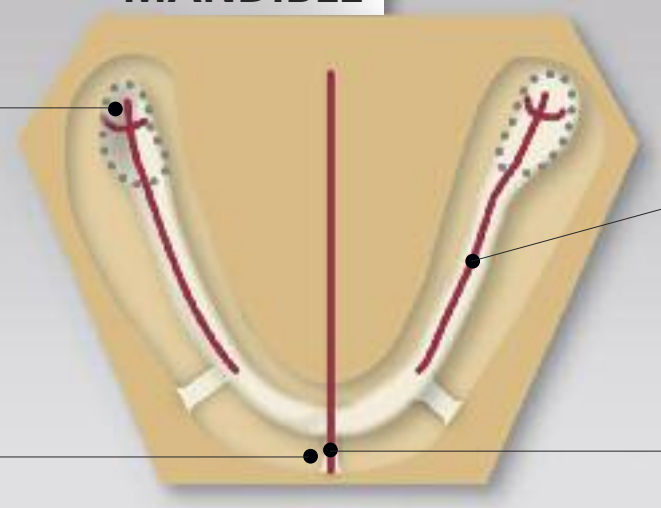
Marking:
First large pair of rugae
Relevance:
Labial positioning of the canine teeth at a distance of 9mm from the tip of the rugae

Marking:
Post dam
Relevance:
Posterior palatal limit of the denture base

Marking:
Outer contour of the tuberosity
Relevance:
Rounded bony protrusion behind the last molar

Marking:
Crest of the alveolar ridge
Relevance:
Provides orientation in the determination of the bite type

MANDIBLE



Marking:
Upper third of the retromolar pad
Relevance:
- Positioning of the template on the dorsal aspect (corresponds to the height of the occlusal plane).
- Dorsal positioning of the lateral wings of the horizontal guide

Marking:
Crest of alveolar ridge
Relevance:
The central fossa of the SR PHONARES*Typ* and SR PHONARES*Lingual* denture teeth run along this line

Marking:
Lowest point of vestibule
Relevance:
Starting point for determining the total vertical dimension

Marking:
Anatomical midline of model
Relevance:
- Bilateral orientation of the anterior setup
- Positioning of the symphysis fork of the horizontal guide

SR PHONARES® NHC

The design of the anterior arch significantly influences the facial expression of the patient.

The characteristics of each individual are unique; the reference lines determined during the model analysis phase can be used as mean initial guides for the setup of the SR PHONARES NHC denture teeth.

The wax try-in of the setup to verify the phonetic and functional virtues represents the definitive oral reference.

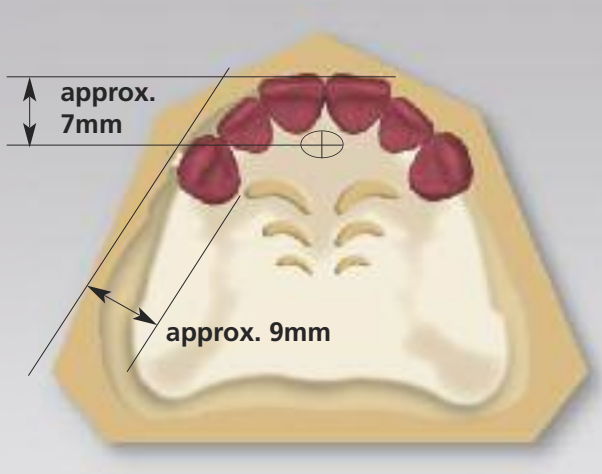
The SR PHONARES anterior teeth are suitable for various anterior setup designs, ranging from conventional to highly individualized. Consequently, the anterior teeth support the natural esthetic appearance of the individual patient.

SETUP ACCORDING TO MODEL ANALYSIS

The incisive papilla provides a reliable reference point for the setup of the anterior teeth because of its transverse and sagittal resistance to wear.

In a normal bite situation, the central incisors are aligned with the incisive papilla by positioning the labial surface approx. 7mm towards the front from the centre of the incisive papilla.

The raphe median plane determines the symmetry axis of the anterior tooth setup in the upper jaw. The course of the incisal edges of the central incisor teeth is determined by half the height of the overall vertical dimension plus 2mm of overlap.



The position of the canine teeth plays a decisive role in the creation of a harmonious facial expression. In the dental arch, the canines are positioned in the area of the first large pair of palatine rugae, with the labial surface of the maxillary canines being placed at a distance of approx. 9mm. The vertical orientation of the canines significantly influences the curvature of the smile line.

After the canines have been positioned, the lateral incisors are placed in the gap between the central incisors and the canines. By slightly rotating or interlocking the lateral incisors, highly individualized effects can be achieved.

Starting with the canines, the mandibular incisors are set up in a vertical and sagittal distance that corresponds with the respective occlusal position and bite situation.

It can be checked if the smile line runs symmetrical to the arch of the lower lip by transferring the markings on the bite rim to a silicone key.

The BPS manual provides a detailed description of the model analysis and anterior tooth setup method.

SET & FIT

The SR PHONARES NHC anterior teeth represent a new generation of denture teeth, offering lifelike esthetics in prosthetics.

The texture of the labial surfaces reproduces the mild ripple effect seen on natural enamel surfaces. The perikymata ensure a dynamic, true-to-nature appearance of the tooth moulds.

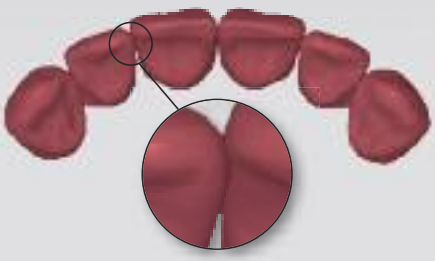
The wide design of the tooth necks of SR PHONARES NHC teeth permit metal structures and abutments to be reliably covered.

The Set & Fit design is based on convex distal margins and concave mesial proximal surfaces, which interlock like a joint. The Set & Fit design ensures the natural closure of interdental spaces.

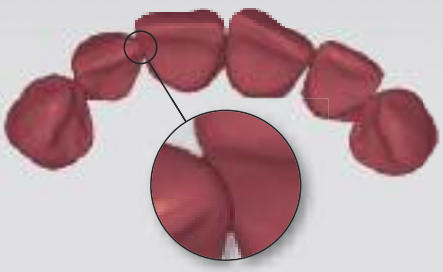
No matter which setup method is used, black triangles are prevented due to the widely dimensioned cervical portion of the teeth. Consequently, dental technicians can enjoy complete freedom in the design of the gingival portion (i.e. "pink esthetics") of the dentures.

SETUP VARIATIONS

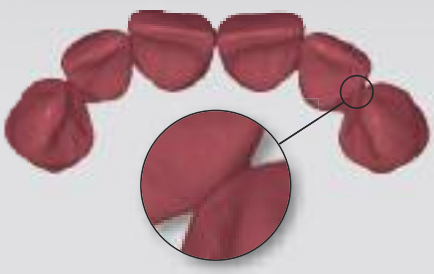
Harmonious



Slightly individualized



Highly individualized



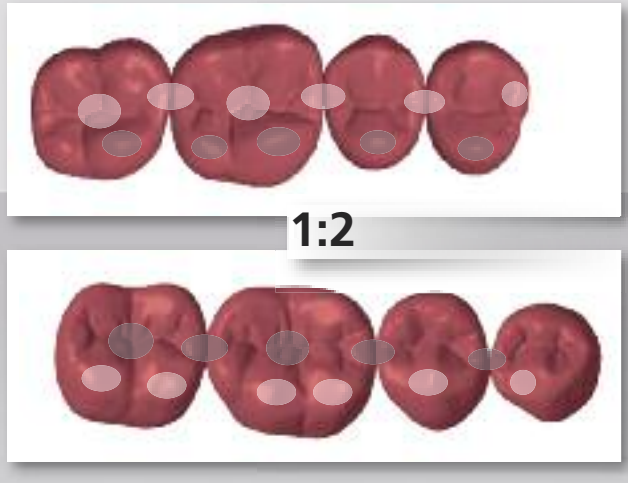
Various methods can be used to set up the SR Phonares teeth. The Set & Fit design provides tight proximal contacts for all anterior setup options. This also promotes the hygiene capability of the dentures and enhances the overall esthetic appearance.

SR PHONARES® *Typ* NHC

CONVENTIONAL OCCLUSION

The SR PHONARESTyp NHC teeth continue the 40-year-old success story of the Orthotyp tooth moulds.

The Ivoclar Vivadent "Typ" tooth lines are based on the principle of the group function of the latero- and mediotrusion side according to Dr. Strack.



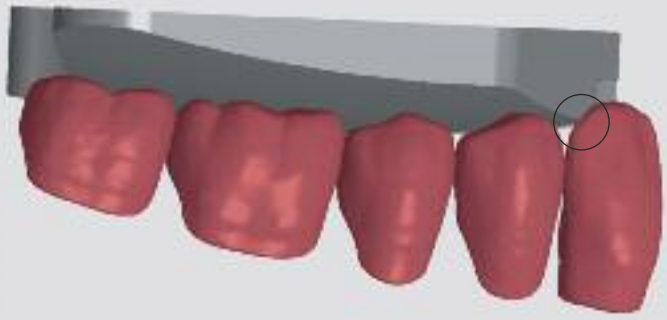
The SR PHONARESTyp teeth are set up in accordance with a normal bite situation in a one-to-two-tooth relation. Consequently, the primary contacts in the centric position are located in the central fossae of the mandible and on the marginal ridges.

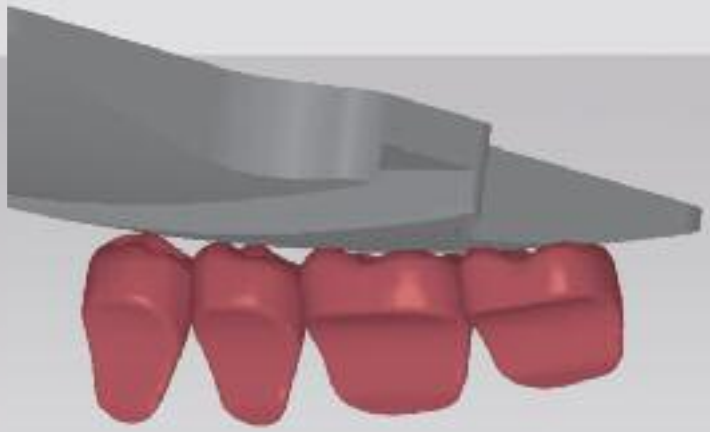
The SR PHONARESTyp NHC teeth are supported by a secondary contact area on the buccal cusps in the mandible.

The SR PHONARESTyp NHC denture teeth are suitable for universal applications.

TOOTH SETUP IN COMPLETE DENTURE PROSTHETICS

The SR PHONARESTyp teeth were developed in accordance with the principles of the Biofunctional Prosthetic System (BPS). The lower posterior teeth are set up with the help of a setup template. In line with the above notes on model orientation, a 3D, 2½D, or 2D template is used.





The first step involves aligning the template with the height of the distal third of the retromolar pad in the posterior region and with the height of the distal angle of the mandibular canines in the anterior region. For the setup of the SR PHONARESTyp NHC teeth according to the BPS principles, the following criteria have to be observed:

The use of a template ensures that the sagittal (Spee) and transverse (Wilson) compensating curves are taken into account. The compensating curves of the natural dentition are essential for bilateral balanced group guidance.

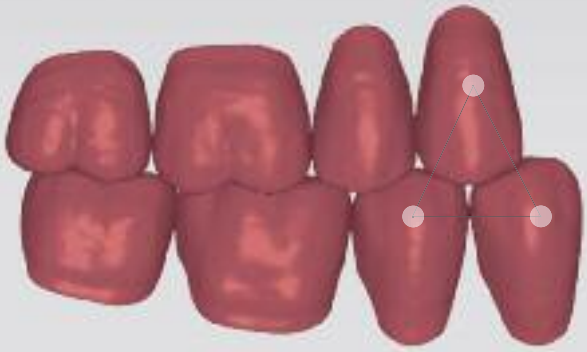
Seen from the occlusal side, the central fossae of the mandibular posterior teeth are positioned over the crest of the alveolar ridge. The lingual border of the posterior tooth setup is defined by Pound's line (Pound's line extends from the mesial corner of the mandibular canine to the lingual border of the trigonum on the same side).

The lines on the template facilitate the symmetrical setup of posterior teeth.
The setup of the mandibular teeth begins with the first premolars, followed by the second premolars, first molars and second molars.

Contact of the template table with the buccal cusp tips and mesio-lingual cusps must be ensured.

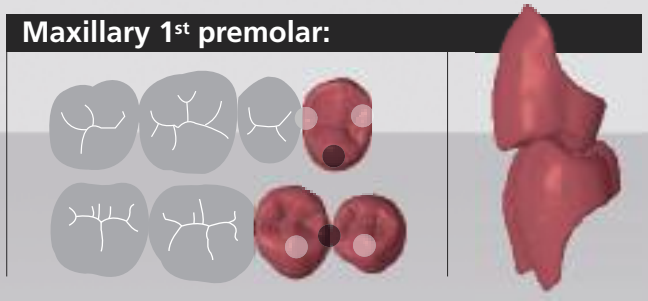
In the process, the vertical axes of the first and second molars are automatically aligned. Viewed from the buccal side, the axes of the first and second premolars have to be aligned perpendicular to the template.

INTERCUSPATION



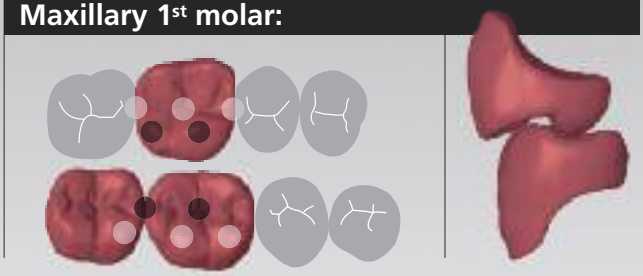
The maxillary teeth can now be aligned with the mandibular teeth in a 1-tooth-to-2-tooth relationship in optimum intercuspation.

Maxillary 1st premolar:



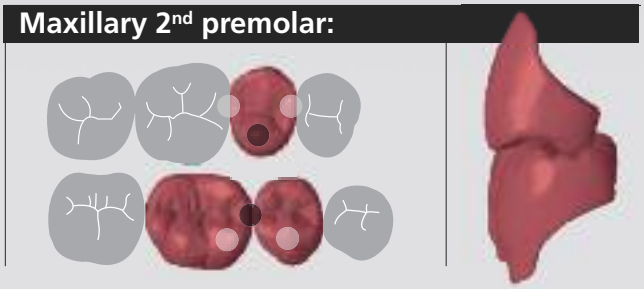
- The palatal working cusp of the maxillary premolars has marginal ridge contacts with its antagonist.
- The buccal corridor is created by the alignment of the first premolar.

Maxillary 1st molar:



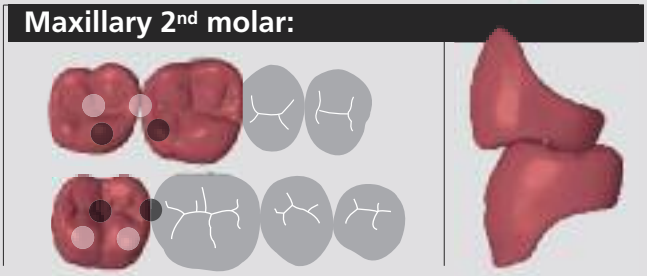
- The mesio-palatal working cusp engages with the central fossa of the mandibular first molar.
- The disto-palatal working cusp has marginal ridge contacts with its antagonist.
- Viewed from the buccal side, the mesio-buccal cusp of the maxillary first molar points towards the mesio-buccal fissure of its antagonist. This is a typical characteristic of a conventional bite with normal intercuspation.

Maxillary 2nd premolar:



- The palatal working cusp of the maxillary premolars has marginal ridge contacts with its antagonist.
- The mandibular working cusps are in contact with the marginal ridges of the maxillary second premolars.

Maxillary 2nd molar:



- The mesio-palatal working cusp engages with the central fossa of the mandibular second molar.
- The disto-palatal working cusp has marginal ridge contacts with its antagonist.

GUIDELINES ON GRINDING-IN

1 Checking the centric contacts:

In complete denture prosthetics, no major adjustments by grinding are made prior to creating the resin base. If the packing or cold-pouring technique is used to produce the denture base, an increase in vertical dimension has to be expected. With the SR Ivocap Denture Processing System, however, an increase in the vertical dimension is prevented from the very start.

Increased vertical dimensions should be corrected prior to removing the polymerized dentures from the model whilst the centric lock is engaged. The following guidelines should be observed:

- Do not grind the working cusps.
- Reduce premature contacts in the antagonist fossa.

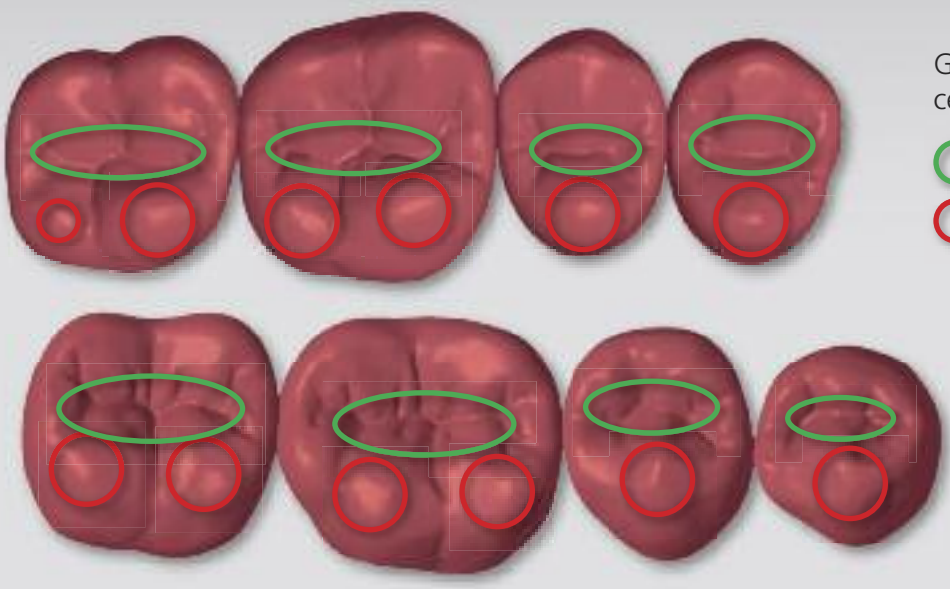
After the height of the occlusal position has been adjusted, all the centric contacts have to be in place as determined by the setup.

2 Checking the functional movements:

Relatively extensive guiding surfaces are desirable to ensure a balanced occlusion within the functional range; the following grinding-in guidelines should be observed:

- The centric contacts must no longer be ground.
- Working side (laterotrusion): mesio-buccal cusps in the maxilla, lingual cusps in the mandible
- Balancing side (mediotrusion): mesio-buccal cusps in the mandible
- Protrusion disto-buccal cusps in the maxilla, mesio-buccal cusps in the mandible
- Retrusion: mesio-buccal cusps in the maxilla, disto-buccal cusps in the mandible.

The incisal edges of the anterior teeth should be ground from the palatal side in the maxilla and from the lingual side in the mandible, in accordance with the wear pattern occurring in the natural dentition.



Grinding-in areas to establish centric contacts:

- apply contact by grinding
- do not grind

After a wear period of 2 to 6 weeks, a new bite record should be taken and adjustments by grinding performed, if necessary.

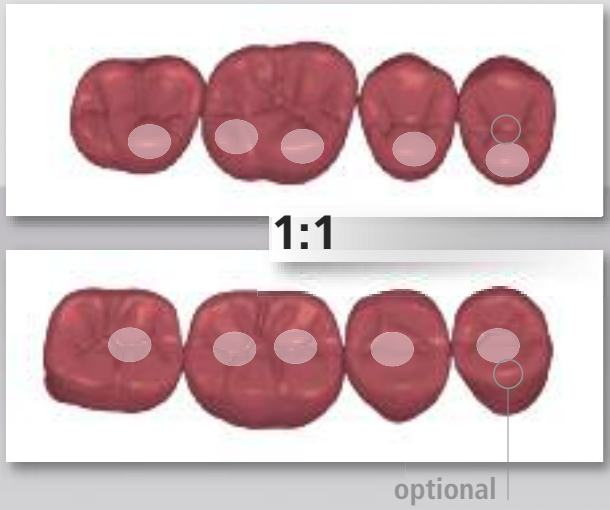
SR PHONARES® *Lingual* NHC

LINGUALIZED OCCLUSION

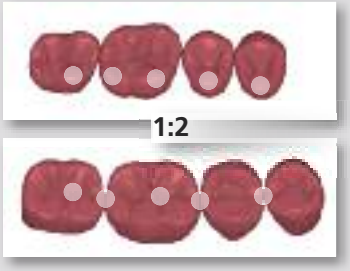
The basic principles of lingualized occlusion have been incorporated into the design of the SR PHONARESLingual NHC denture teeth.

The centric contacts with the maxillary palatal cusps are centred in the mandibular fossae. The buccal cusps are set up out of contact with each other. An additional buccal contact relation can be established on the first premolars if this is desirable from the point of view of esthetics.

Hence, the SR PhonaresLingual NHC teeth ensure a particularly pronounced buccal support mechanism.



The marginal ridges of the SR PHONARESLingual NHC teeth feature a reduced design so that the palatal cusps of the maxilla can move freely in a protrusive or retrusive direction.



Depending on the occlusal position and the setup of the anterior arch, it is also possible to achieve a 1-to-2 inter-digitation.

TOOTH SETUP IN COMPLETE DENTURE PROSTHETICS

The SR PHONARESLingual teeth were developed in accordance with the principles of the Biofunctional Prosthetic System (BPS). The posterior teeth are set up with the help of a setup template.

In line with the above notes on model orientation, a 3D, 2½D, or 2D template is used. The first step involves aligning the template with the height of the distal third of the retromolar pad in the posterior region and with the height of the distal angle of the mandibular canines in the anterior region.

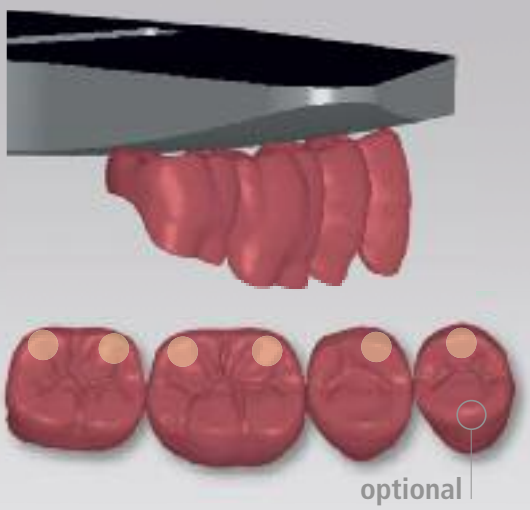
In the mandible, the SR PHONARESTyp NHC teeth can be set up in either one of two versions: setup without curve of Wilson or setup with curve of Wilson.

Since all working contacts are lingualized and the buccal surfaces do not occlude, there is some scope for variation in the degree of the curve of Wilson.

The following criteria should be considered when setting up SR PHONARESLingual NHC teeth:

Setup method WITHOUT curve of Wilson

The characteristic of this setup method is the fact that the buccal cusps do not have any contact with the template. It is necessary to ensure that the buccal and lingual cusp tips are on the same plane.



The central fossae of the mandibular posterior teeth are positioned over the crest of the alveolar ridge. The mandibular posteriors must not extend beyond Pound's line on the lingual aspect.

The contacts with the template are concentrated on the lingual cusp tips to achieve a setup that only has a sagittal compensating curve. Viewed from the buccal side, the vertical axes of the posterior teeth have to be aligned perpendicular to the template. To achieve a horizontal alignment of the cusp tips on the first premolar, the buccal cusp may be brought into contact with the template.

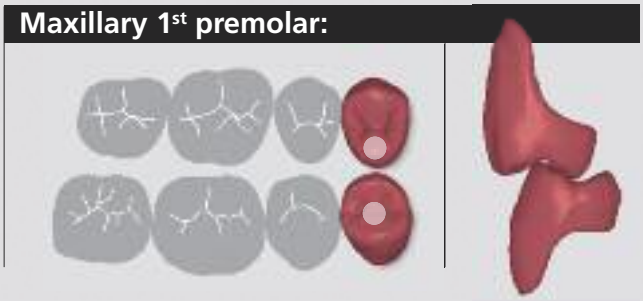
Setup method WITH curve of Wilson

If the curve of Wilson is taken into account in the setup of the SR PHONARESLingual NHC teeth, contacts between the template and the buccal and lingual cusps are required.

INTERCUSPATION

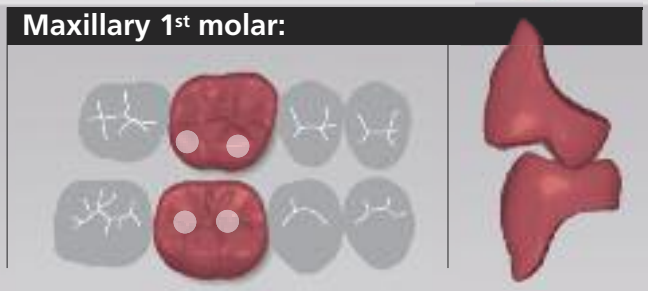
The maxillary teeth can now be aligned with the mandibular teeth in a 1-tooth-to-1-tooth relationship in optimum intercuspation.

Maxillary 1st premolar:



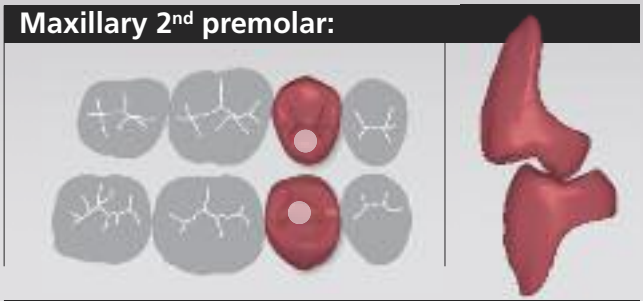
- It is optionally possible to establish a contact relation between the mandibular buccal cusp and the central fossa of the maxillary premolar in order to achieve an esthetic transition from the canines as well as a buccal corridor.

Maxillary 1st molar:



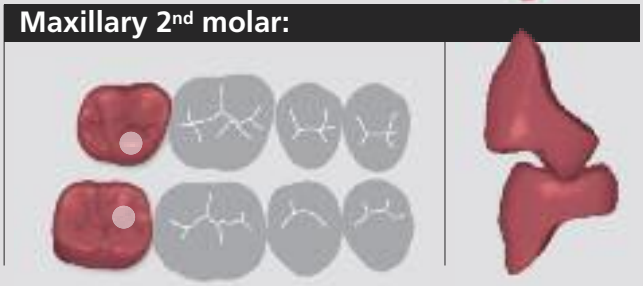
- After having set up the mandibular teeth in compliance with the findings of the model analysis, the mandibular first molar is usually positioned at the lowest point of the alveolar ridge. The lingual cusps of the maxillary molar form the static mastication centre.

Maxillary 2nd premolar:



- The palatal cusp of the maxillary premolar engages with the fossa of the mandibular premolar.

Maxillary 2nd molar:



- The buccal cusp distance along the tooth arch is extended due to the Monson curve.

GUIDELINES ON GRINDING-IN

1 Checking the centric contacts:

As a general rule, no major adjustments by grinding are made prior to creating the resin base in complete denture prosthetics. If the packing or cold-pouring technique is used to produce the denture base, an increase in vertical dimension has to be expected. (With the SR Ivocap Denture Processing System, however, an increase in the vertical dimension is prevented from the very start.)

Increased vertical dimensions should be corrected prior to removing the polymerized dentures from the model whilst the centric lock is engaged. The following guidelines should be observed:

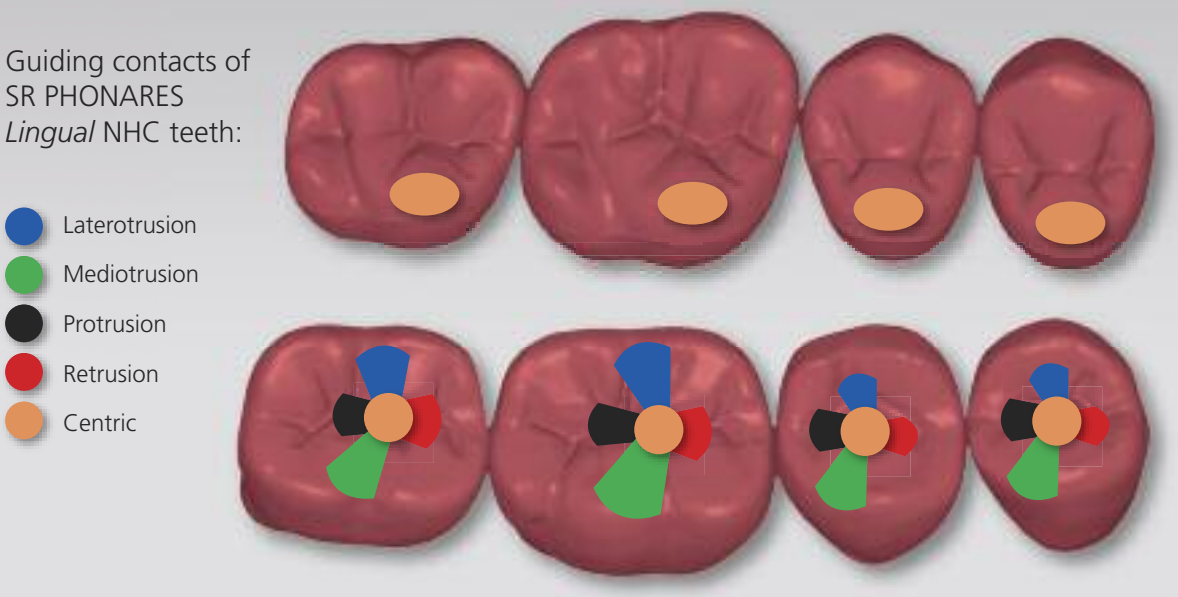
- Do not grind the working cusps.
- Reduce premature contacts in the antagonist fossa.

After the height of the occlusal position has been adjusted, all the centric contacts have to be in place as determined by the setup.

2 Checking the functional movements:

To ensure a functional lingualized occlusal scheme, guiding surfaces as shown below are desirable:

Guiding contacts of SR PHONARES *Lingual* NHC teeth:



After a wear period of 2-6 weeks, a new bite record should be taken and adjustments by grinding performed, if necessary.

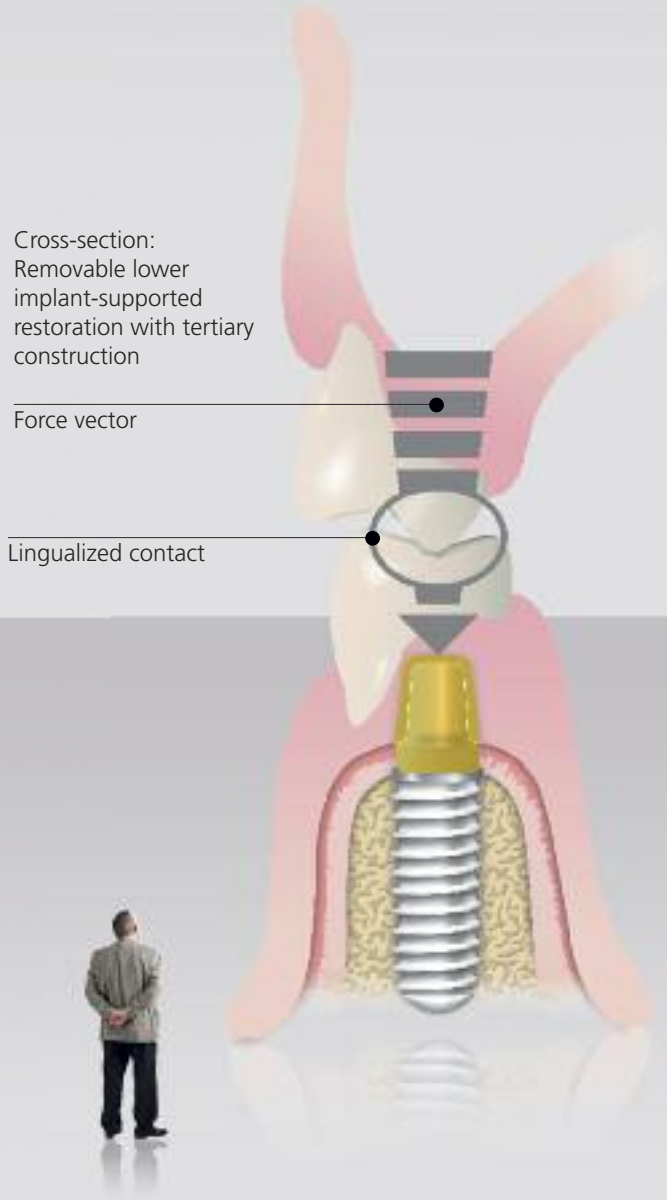
Implant prosthetics places new requirements on the materials and techniques used in dental lab technologies.

The periodontium absorbs some of the stress to which dental replacements on natural abutments are exposed.

However, in the case of implant-retained dental prostheses, the stress is not cushioned by the periodontal ligament. The proprioceptive function is limited and the actual masticatory forces are considerably higher in edentulous patients with implant-borne prostheses than in patients with natural abutments.

Tooth replacements are constantly exposed to shear, compressive and tensile forces. However, compressive forces affect the implant interface considerably less than tensile or shear forces due to torque.

The SR PHONARESLingual NHC teeth are particularly suitable for use in implant prosthetics.



Cross-section: Removable lower implant-supported restoration with tertiary construction

- It is possible to direct the masticatory forces to the implant by a force vector in the longitudinal axis, which results in a reduction of the shear and tensile forces.
- The occlusal design of the mandibular SR PHONARES*Lingual* NHC teeth is characterized by a flat morphology, reduced marginal ridges, and freeway space in the centric position. High lateral loads are thus avoided.
- The specially developed nano-hybrid composite material offers outstanding wear resistance.

Rationale for Choices of occlusal Schemaes for complete dentures supoorted by Implants, Nikolopoulou, Ktene-Aqapitou, Journal of Oral Implantology, Vol. XXXIII/ No. Four/2006

IMPLANT PROSTHETICS

COMPLETE DENTURE PROSTHETICS

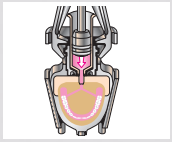
PARTIAL DENTURE PROSTHETICS

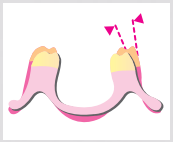
HYBRID PROSTHETICS

Preparation

Conditioning of the SR PHONARES teeth is recommended before processing the denture base. Basically, the tooth surfaces should be clean and the palatal, basal, and cervical areas should be slightly roughened. The brochure "NHC Processing Guidelines" provides detailed instructions on bonding SR PHONARES teeth to denture base materials.

Completion





Accuracy of fit is decisive in achieving high-quality dental prostheses. We recommend using the SR Ivocap injection system to process the denture base. During controlled heat-pressure polymerization, the material shrinkage is compensated by the flow of the material.

The SR Ivocap System eliminates the spherical dimensional changes in conjunction with the conventional polymerization methods identified by Prof. Dr. K.H. Körber (Kiel, Germany).

The SR Ivocap System is an ideal high-quality supplement to the SR PHONARES line of denture teeth.

Finishing / Polishing

Overheating should be prevented when finishing the dentures. Polishing or cleaning agents containing solvents should not be used for cleaning. They may adversely affect the composite material of the denture base and denture teeth and cause white discolouration.

Grinding-in should be carried out with cross-cut tungsten carbide burs with adequately shaped attachments. Final polishing with Universal Polishing Paste and a goat's hair brush provides the surface of the NHC teeth with a finish that ensures a long service life.

Further information

SR PHONARES is a component of BPS, the future oriented Ivoclar Vivadent brand prosthetic system offering customized marketing tools for dental laboratories and professional support by specialized BPS consultants.

A comprehensive package of informational material is available for the SR PHONARES tooth line.

The **International Center for Dental Education (ICDE)** offers further educational courses on the application of SR PHONARES teeth.

Further information on BPS and SR PHONARES can be obtained from Ivoclar Vivadent or accessed at the company's website on the internet:
www.ivoclarvivadent.com

Literature reference

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  J Prosthet Dent. 1981 Jun;45(6).592-7

Source of pictures: The technical pictures were supplied by courtesy of:
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MDT Thorsten Michel, Schorndorf (Germany)
Wohlgenannt Zahntechnik KEG, Dornbirn (Austria)

SR PHONARES®

MODERN MASTERPIECES

TECHNICAL DOCUMENTATION

Delivery forms

SR PHONARES® NHC
18 upper anterior moulds
4 lower anterior moulds

SR PHONARES®*Typ* NHC
3 maxillary sets
3 mandibular sets

SR PHONARES®*Lingual* NHC
3 maxillary sets
3 mandibular sets

Shade range

16 A-D shades
Bleach shades

Physical data

		Incisal and dentin	Back incisal and cervical
Flexural strength	ISO 10477	> 125	> 120 N/mm²
Modulus of elasticity	ISO 10477	> 4500	> 3000 N/mm²
Ball indentation hardness	ISO 2039-1	> 240	> 170 N/mm²
Water absorption	ISO 10477	< 23	< 26 µg/mm³
Water solubility	ISO 10477	0	< 0.1 µg/mm³
Vickers hardness HV 0.5/30	Internal directive	> 260	> 190 N/mm²

This is a product from our "Implant Esthetics" competence field. Products from this field are optimally coordinated with each other.

BPS®

CE 0123

628228/1009/e/BVD

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