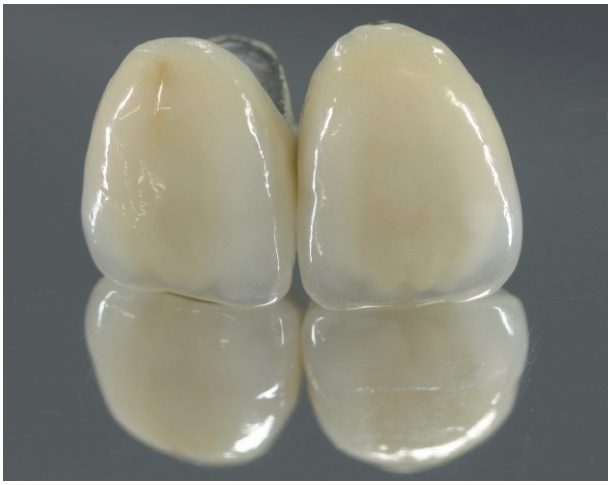
Instruction for use

K2

natural, multi-purpose and simple to use



K2 LF is a highly condensed 2-phase Leucite ceramic.
It can be fired at 770°C and is suitable for all alloys
having a Coefficient of Expansion (WAK) between 13,8 and 14,9/25°-500°C.
This ceramic system uses the usual nuances and reflection of natural teeth. It offers a vital result even in cases where there is insufficient space.
K2 is the first ceramic system developed with a comprehensive system, including the press ceramic and the Press over Metal (PoM) systems.
The economical K2 ceramic system is revolutionary -
The user needs only one ceramic layer for metal - as well as for full ceramics.
K2 assortments are available in the A1-D4 colours and will include Opal, Fluor, Chroma and Intensive masses.
A higher shade measurement can be obtained by mixing or adding the various colours before firing.
The K2 ceramic's Press ingots may be used when working with full ceramic, Inlays Onlays and PoM.
There is a probability of 100% correspondence with the selected colour, even in the case of personalisation, as a result of the diversity of opalescence and fluorescence.

Porcelain Furnace Calibration / Cleaning

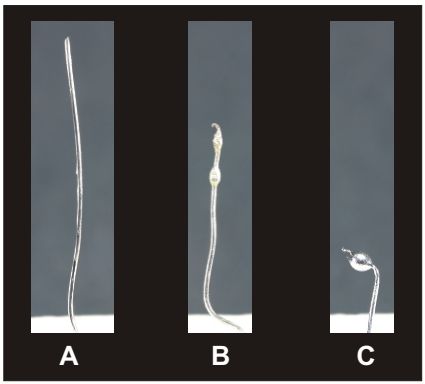
It is essential to calibrate the oven before using it.
Failure to initially calibrate the oven may destroy the ceramic.
The results of failing to calibrate the oven may be :
- a flat contour
- a grease like surface
- difference in colour

If the ceramic is too opaque cracks and fissures may appear in the ceramic.

Calibrating the porcelain furnace will result in brilliant firing results, in minutes!

Calibrating the porcelain furnace using the "Silver Test"

Preheating temp	Dry time	Raise of temp	Vacuum	Final temp	Hold Time
625°C	4 min	75°C/min	-----	961°C	1 min



A The temperature is too low
- the wire will not melt

B **The temperature is correct**
- the wire will melt at the correct rate

C The temperature is too high
- the wire will melt too rapidly

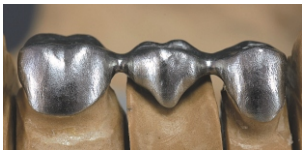
Important !
Incorrect results, the porcelain furnace must be readjusted an recalibrated!

Porcelain Furnace Cleaning

The K2 LF is a low fusion ceramic.
It is fired at low tempreatures, which may result in residues being left in the porcelain furnace. In order to ensure premium firing results **The porcelain furnace must be cleaned once in a month**.

Furnace cleaning: 1. Five (5) minutes at 1200°C with vacuum
2. Five (5) minutes at 1200°C without vacuum

K2 / Framework



The framework must be well prepared before handling!

Preparation:

- Use a tungsten carbide bur with a cross-cut for finishing and finally for grinding with a syntered diamond.

Important: Grind the framework in one direction only in order to avoid any overlapping in the metal.
Overlapping in the metal may create bubbles in the ceramic.

Sandblasting:

Sandblast the work area using an aluminium oxide, under pressure of 2 bar.
Precious alloy: 110 µm
Non precious alloy: 250 µm
Then clean the framework with a steam cleaner.
Do not handle or touch the framework with bare hands.

Always follow the alloy Manufacturer's technical data !

Oxidizing:

Oxidation will occur in the framework depending on the particular alloys. The framework will not necessarily be oxidized when using non precious alloys, but oxidation is suggested for the framework control.

After oxidation, the surface of the framework must have a uniform colour. If spotting occurs, the framework must be sandblasted or cleaned, and if necessary the oxidation process must be repeated.

Oxidizing firing should follow the manufacturer's instruction for the alloy ! After the oxidizing with non precious metal-sandblast framework again!

Before Firing

After Firing

Bonder

It is suggested to use the bonder for frameworks made with non precious alloy
- Mix the Bonder well and use a paste opaque brush to apply a thin covering layer
- After firing, the bonder must be a light brilliant yellow in shinning colour, depending on the composition of the Alloy.

Preheating temp	**550°C**	
Dry time	**6 min**	
Raise of temp	**80°C/min**	**V**
Vacuum	**yes**	
Final temp	**980°C**	
Hold Time	**1 min**	
Character Surface	**shining**	

Do <u>not</u> use Bonder for PoM!

For non precious alloy framework always use opaque as follow:
1. Wash opaque at 970 - 980°C (10% covered)
2. First opaque firing at 970°C (70% covered)
3. Second opaque firing 940°C (100% covered)

Steam framework after opaque firing!

1. Before Firing

1. After Firing

1. (Wash opaque) and second Opaque firing

- Mix the powder opaque with the corresponding liquid into a creamy Consistency. Apply it using a glass tip or a brush

- Paste opaque must be applied by using a brush
- Paste opaque can be diluted with glaze fluid

The opaque must have a creamy consistency and be applied smoothly

The first opaque layer must cover 70% of the surface.

The second opaque layer must cover the remaining 30%.

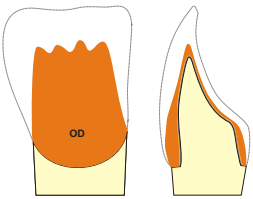
After firing, the opaque surface must appear shiny !

2. Before Firing

2. After Firing

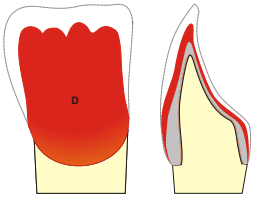
Follow the instructions (see firing table)!
- Let the Paste opaque dry in 6 - 8 min., do not diluted with water, wet lightly the brush
- A high temperature or short drying time can lead to bubles forming under the dry surface and/or to delamination of the opaque layer
- Avoid having bubbles as this leads to fissures
- Close the cover well after use!

K2 base / 1. Dentine - Enamel Firing

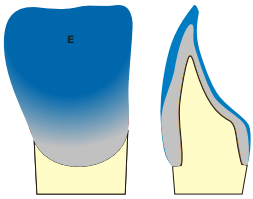


- After the opaque firing, apply the mixed Opaque Dentine fully on the coping
  - It provides the colour stabilisation of deep inside of the tooth
  - It covers the crown's border

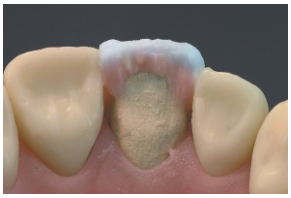
(Cases of shoulder preparation, cover the cervical area through metal or second shoulder firing, see K2 advanced)



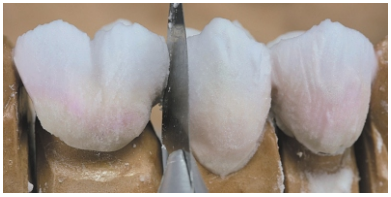
- Apply **Dentine** in reduced tooth shape or in complete anatomical tooth shape and then reduce
- Reduce the incisal more than the cervical area
- This leaves more space for Enamel
- On thin areas, Opaque Dentine can be applied instead of Dentine for a better covering



- The tooth shape can be completed By firing **Enamel**



- Model the palatinal shape with **Dentine and Enamel**
- Use **Opaque dentine** for the thin areas as it is a more effective cover



Separate span bridges with several elements in order to avoid fissures. Except opaque it is suggested to separate in single segment before firing.

After firing the surface must shine.

Do not use long-term liquid while mixing!
In case of using the make up colours in the construction of the ceramic layer do not mix them with glaze fluid but with the modelling liquid !

K2 base / 2. Dentine - Enamel Firing

Finish and clean the crown before the correction firing.
Finishing and grinding work can be reduced when not Over-contouring when applying the ceramic layer.
Lightly structuring surfaces gives an Optical and vital tooth shape.

For the correction of the tooth shape:

Enamel = for light corrections and in Enamel areas.

Dentine or a mixture of Dentine and Enamel = for cervical and body areas

Too much Enamel makes the colour too light !

After firing the surface must be shinny.

K2 base / Glaze Firing

The structure of the ceramic K2 is homogeneous
that's why a glaze firing with glaze porcelain is not necessary.
It is sufficient to coat the tooth with **Glaze fluid**.
Only when a high glaze grade is desired,
the **Glaze porcelain** should be used.

Colour characterisation will be highlighted when applying **K2 Stains**
and fixed by means of a glaze firing.

A natural Glaze can be reached, especially in case of anterior restaurations when :
- finishing the natural structure of the surface with a diamond bur
  = a natural light reflection will be achieved
- gentle overworking and polishing the ceramic with a rubber wheel
- to target with DIA GLACE diamond polishing paste and DIA QUICK
  to achieve the desired individual glaze grade

Achieve the finishing
before applying the
glaze fluid, Stains and /
or glaze porcelain

After the glaze firing
polish with glaze fluid without the
glaze porcelain

K2 advanced / First and second Shoulder Firing

Apply shoulder porcelain

After first Firing

Seal the die with Clear Spacer or Die Hardener and than isolate the die.

Locate the correct tooth colour corresponding with the shoulder powder and mix it with the shoulder liquid. Apply the mixture on the desired area over the margin line.

Condense the mixture by vibrating the coping with a lecron.

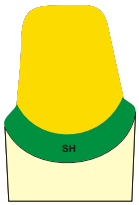
Eliminate excess Liquid by patting dry with absorbent tissue paper.

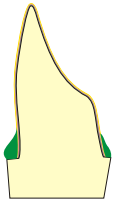
Place the applied shoulder powder in the furnace chamber in order to dry it or with a hair-dryer.

Correction

after secod Firng

For the second firing,
Once it has been fired, fill the gaps with shoulder porcelain.





Apply shoulder porcelain economically,
do not over-contour !
The less porcelain, the less shrinkage will Occur !

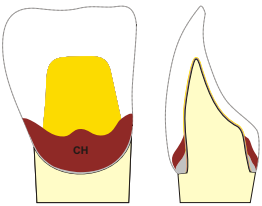
SH 1 - SH 4, SH 7 = light transparent and strong fluorescent

SH 5 = opaque, suggested for non-precious as first layer to cover the metal border

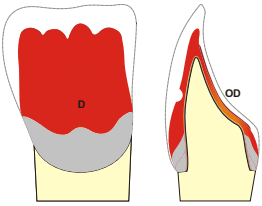
SH 6 = for Bleaching - Colour conception, must appear white
Can be mixed with S1 - S4 or S7

SH G = Shoulder porcelain in Gingival colour

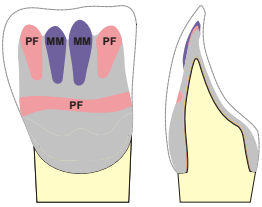
K2 advanced / 1. Dentine- Enamel Firing



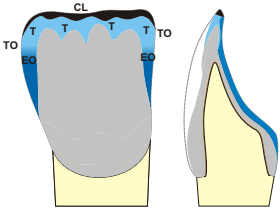
After both shoulder firings:
- place the clean coping on the model
- apply **Chroma** in the cervical areas for a deeper colour effect



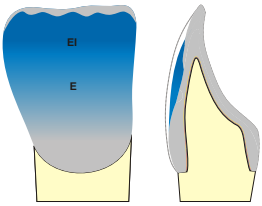
- Apply **Dentine** in the shape of the reduced tooth or in complete anatomical shape, then reduce the incisal more then the cervical area this leaves more space for Enamel
- **Opacious-Dentine** can be used instead of Dentine on thinner areas for a better covering of porcelain
- optional, labial diagonal block out for **Fluor**



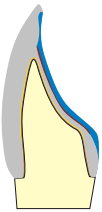
for more vitality in tooth
- Mamelon in **K2 Mamelon or Fluor** can be applied
- fill the optional labial diagonal cavity with **Fluor**



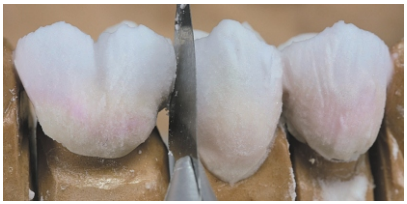
- construct the incisal area with **Transpa**
- approximal **Enamel opal** and **Transpa opal**
- finish the incisal ridge with **Clear**



- the **Enamel** completes the shape of the tooth



- model the palatinal shape with **Dentine and Enamel**
- for a better covering effect on thin areas **Opacious-dentine and K2 Chroma** Can be applied

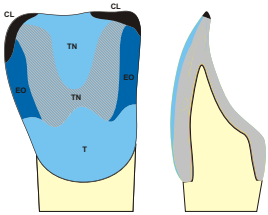


To avoid cracks with bridgework with several copings, it is suggested, except where opacious dentine is applied, to separate single segments if possible before firing

After firing, the surface must be silky and shiny.

Do not use long-term liquid while mixing!
When using make up colours in the construction of the ceramic layer - do not mix them with glaze liquid but with the modelling liquid !

K2 advanced / 2. Dentine - Enamel firing (Correction firing)



Finish and clean the crown before the correction firing.
Finishing and grinding work can be reduced when not over-contouring when applying the ceramic layers. Lightly structuring surfaces gives an optical and vital tooth shape.

For the correction of the tooth shape:

- in the case of thin applications = **Transpa**

- in the case of thick layers = Mix **Enamel** with **Transpa**

Too much Transpa porcelain results in the framework having a grey appearance !
Too much Enamel makes the colour too light !

K2 advanced / Glaze firing

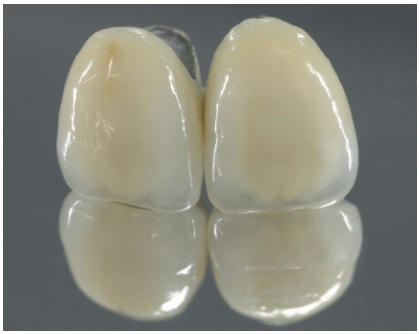
The structure of the ceramic K2 is homogeneous
that's why a glaze firing with glaze material is not necessary.
It is sufficient to coat the tooth with **Glaze fluid**.
Only when a high glaze grade is desired,
Than the **Glaze masse** must be used.

Colour caracterisation will be brought up by applying **K2 Stains**
and fixed through a glaze firing.

A natural Glaze can be reached, specially in case of Front teeth restaurations when:
- finishing the natural structure of the surface with a diamond bur
  = a natural light reflection will be achieved
- lightly overworking and polishing the ceramic with a rubber
- to target with DIA GLACE diamond polishing paste and DIA QUICK
  to achieve the desired individual Glaze grade

Achieve the finishing before
applying the glaze fluid,
Stains and / or Glaze powder

After the Glaze firing
Polish with Glaze fluid without
Glaze powder



K2 press

Two techniques are available for the manipulation of the ceramic K2 press.

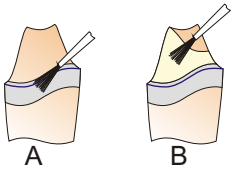
1. Stain technique
Wax up the full anatomical and functional tooth shape of the full crown, inlays, onlays or veneers with Ash Free waxes which burn without leaving residue.
Then press, finish and finally individually paint the model.

2. Build up technique
Press and finish the wax Model either as copping or as a reduced shape tooth.
Then individually apply in layers the Dentine -, Enamel - and the porcelain with special effect.

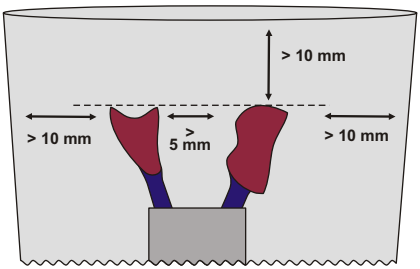
Preparation of the Die

A - Seal the margin line with DIE HARDENER
B - Apply in thin layer Die Spacer 1mm above the margin line

Suggestion: DIE SPACER dentine 10my for optimum colour



Wax-up



No matter what kind of thechnique is used, the thickness of the wax-up must be at least **0,8 mm**.

Spruing:
Depending on the thickness of the wax-up, use wax wire having Ø 3,0 - 3,5 mm.
The length of the wax wire should be 4mm to a maximum 7 mm.
Sprue longer Press objects with short wax wire
and short Press objects with longer wax wire.
The low border of the Press objects should be at the same level.
Wax up the wax canal on the modellation without tapering or rough surfaces.

Fix the Press canal on the crucible former with light inclination toward outside.
In case of Inlays and Onlays the basic surfaces must be directed toward outside.
The distance among the Press objects must be at least 5 mm
and to the wall and underside at least 10 mm.

Important! For full ceramic use organic waxes which burn 100% without residue!
Do not use debubbilizer!

K2 press

Investment

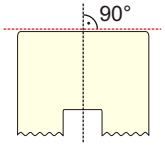
Before starting with the investment the weight of the wax must be measured, in order to know the quantity of the Pellets to be used.

Wax weight = Modellation + Press Sprue		
Wax weight	Ingots	Cylinder
until 0,6g	1x2g	100g
until 1,3g	2x2g	100g / 200g
until 1,6g	1x5g	300g
Until 3,4g	2x5g	300g

- Fix the silicone ring by a lightly turning the socle
- Mix the press investment following the instructions of use and let it turn on the lowest mixing level
- Adhere to the setting expansion
- Carefully pull the former from the cylinder
- Demould the cylinder by placing pressure on the light conic silicone ring

Respect the instructions of use for both investment and the cylinder system !

For the success of the press procedures, the quality of the investment is of high importance. Precision and adjustment are assured with K2 press investment!

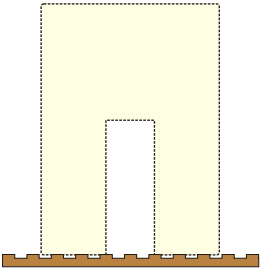


Level the surface of the investment with a plaster knife and ensure that you maintain a 90° angle! Ensure that the stand is secure during pressing.

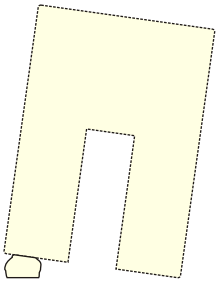
Do not warm the moulding blank!

Preheating

After waiting for the model to set, remove it from the cylinder and place it in the oven.
Both methods; rapid firing and preheating method can be used.
Aluminium oxide Stamps these must be preheated if used.
It is not necessary to heat the investment plunger and ingots.
It is suggested that a corrugated plate be placed in the furnace
or lightly incline the cylinder in the furnace.
Also the furnace must be clean in order to avoid any contamination
of the cylinder and the press plunger.



Or



Important! Carefully follow the instructions for use of the investment!

Pressing

- Using the firing table begin the press program
- Remove the cylinder from the oven and place
  1 - 2 ingots in the oven (depending on the wax weight!)
- Start the press plunger
- When the oven signals that it is ready, apply the cylinder and restart the program
  (the cylinder should not have cooled down too much)

- After completing the pressing procedure, place the cylinder on a special plate
  and let it cool down in room temperature
- When using an aluminium oxide plugger, ensure that there is no ceramic
  or investment residue from the sandblasting.

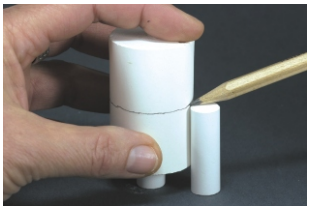
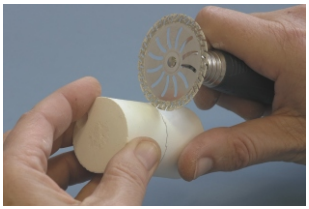
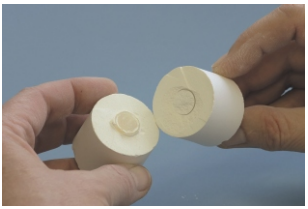
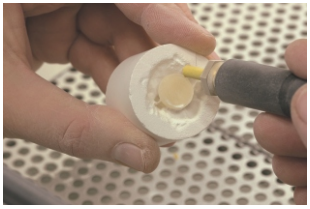
Deflasking

- Mark the position of the press objects by using another press plunger
- Cut the cylinder with a separating disc by following the line you have drawn and separate both parts from each other

Sandblasting:
- Sandblast using glass speed (50 µm). **Do not use pearls with aluminium oxide**
- As long as the ceramic objects are insight, sandblast using maximum 2 bar pressure
- The investment must be totally removed from all areas of the ceramic, in order to continue further steps free of any mistakes

Finishing:
- Separate the sprues from the finished objects by using a diamond cutting disc
- Finish the insertion areas with a fine diamond burs
- Carefully polish the die with diamond and rubber

In order to have an even, uniform surface:
- Finish the working surface by grinding it with diamond disc and carefully sandblast it at low pressure with aluminium oxide
- Finally carefully clean with a hot water steamer - **do not overheat intersticely**

Avoid overheating of ceramic -
It may lead to cracks developing!

- Use only sharp diamond grinding burs
- Work with low pressure and low rotation
- If possible work with water as a coolant

Stain technique

The finished prepared object must have an abraded clean surface
and be free of fat.

K2 Stains can be individually applied in several stain firings.
finally glaze it with **glaze porcelain** and **glaze fluid.**

The objects must be placed on a thin mesh tray
or special rounded supports for full ceramic.

Build up technique

The coping or dentine constructed modelling crowns must be cleaned.
Therafter individually apply, **Dentine -, Enamel -, Transpa- and masses with special effect**
And then fired.
The objects must be placed on a thin mesh tray
or special rounded supports for full ceramic.

Finish with diamond grinding burs and create a natural structured surface.

The crown can be individually characterized with **K2 Stains** and
fixed through a glaze firing or glaze powder.
(see K2 advanced / Glaze firing)









K2 press / Press over Metal (PoM)

1. Stain technique
The full anatomic modelling crown must be pressed on the metal coping.
Then finish it by applying **K2 Stains** and through stain and glaze firing.

2. Build up technique
Apply Dentine on the coping resulting in, pressed modellation.
After finishing the pressed objects, the crown must be individually constructed with K2 masses.

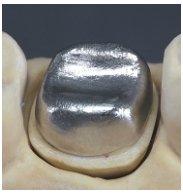
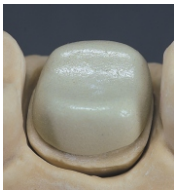
Preparation of the Die: see K2 press

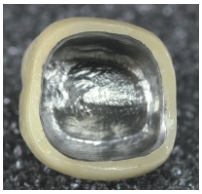
Framework : A metal coping without shoulder will be modelled, cast and finished.
Finally fire the opaque, in the desired colour.
Important! Use only powder opaque, never paste opaque !

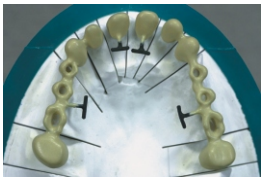
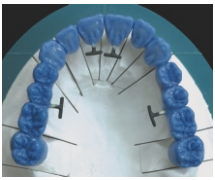
Modelling: On the prepared framework a full anatomic modelling, for the make up technique or a reduced model for the construction technique will be created.

Further steps: see K2 press
Important!
In case of PoM use only speed heating method!
Leave the muffle in the oven for min. 60 min and max. 90 min!

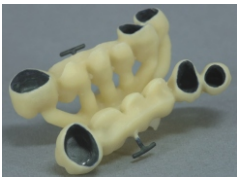
The inside of the coping must be free of wax, or the ceramic must be pressed inside the crown. The crown must be finished. Do not apply high pressure as it may lead to spoiling in the shoulder area.







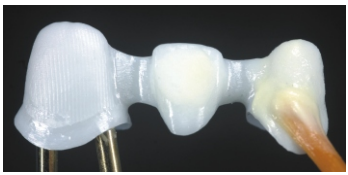

K2 zircon & K2 zircon press

K2 zircon is a high densified synthetic porcelain, which is fired at 810°C.
As the shade- and layering system are uniform for all K2 masses, it will be very comprehensive and easy to work with.
The zircon framework is well wettable.
The natural esthetic of this porcelain will be reached through fluorescence Liner, which care for an optimum shade reproduction.
K2 zircon has a high stability, which allows the technicians a faster and easier layering.
Also it gives an excellent CTE-adjustment.
Security, stands for best results to be reached.

Press Ingots are available in 2 or 5g, also in Transpadentine- and Dentine shades.
They are appropriate for press over zircon framework - layering and Make up technique.

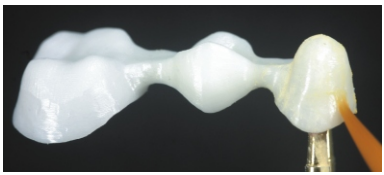
Applying the Liner

K2 zircon layering technique



Mix the Liner of the corresponding shade **with ML Liquide** and apply it in thin layer. the Liner reduces the lightness value of the Zirconia framework and allows a fidelity reproduction of the tooth shade through ist fluorescence.

Press over Zircon (PoZ)



In order to decrease the whitening of the zircon framework, a special watery liner (PoZ) will be mixed and in thin layer applied.
The appliance of a Liner is not necessary in case of PoZ. The modelling can be done directly over the framework by using an ashfree wax.

Read carefully the instruction of use (see Firing table)!

K2 zircon / Layering technique

Thanks to the same shade system as for the K2 LF-Masses, the technician can save great dealer time as the K2 Zircon uses the same technique as the LF.
The layering schematic corresponds exactly to that of the K2 base und advanced description.

1.Layering

After the 1st. Firing

2.Layering

After the 2d. Firing

Glaze Firing

Best Shade caracteristics will be achieved when using K2 stains zircon
and will be fixed with a glaze firing.
Shade nuances can also be obtained when mixing the stains (without glaze fluid)
with the porcelain.

Applying of the Glaze fluid, Stains
and / or Glaze powder

Ready work after glaze firing

Read carefully the firing instructions (see firing table)!

PoZ - Press over Zircon

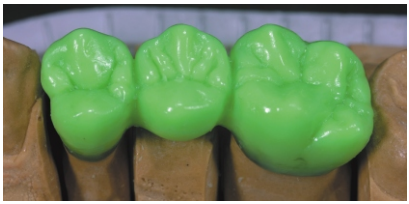
K2 Press zircon can be pressed over all usual Zircon framework.
The framework will be prepared following manufacturer's instructions.

Two Techniques for Over press are available:

- when necessary the Liner firing can be carried as described

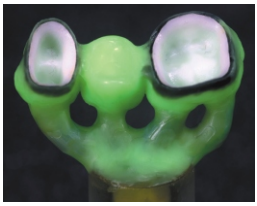
1. Stain technique
The modelling crown or bridge to be done with ash free waxes, than pressed with Transpadentine ingots, finished and individually stained.

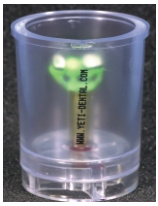
2. Build up technique
The reduced modelling tooth shape is achieved and pressed in Transpadentine or Dentine.
Than the individual layering will be achieved by using K2 Zircon advanced or base.
When pressing only with Dentine ingots, the whole core should be layered with Enamel + Transpa.
When pressing with Transpadentine, follow the same procedures as for K2 advanced or base.
When making corrections over the Dentine core, mix 25% of Clear powder with the corresponding dentine shade!



spruing, press, investment and elaborate

As described K2 press, but consider with press parameters for PoZ!





Wax weight = Modellation + Sprue		
Wax weight	Ingots	Cylinder
until 0,6g	1x2g	100g
until 1,3g	2x2g	100g / 200g
until 1,6g	1x5g	300g
Until 3,4g	2x5g	300g

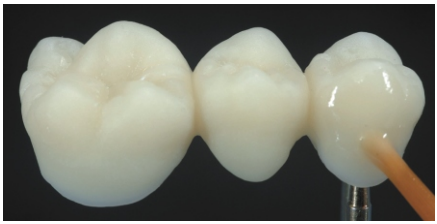
Before starting with the investment the weight of the wax must be measured, in order to know the quantity of the ingots to be used. (see table).

Important: Do not preheat ingots and consider press description!

Glaze firing

1. Glaze firing with stain technique

Paint individually the objects as usual with several stain firings with **K2 stains zirconia** and glaze afterwards.



Applying of the glaze fluid, make-up and / or glaze masse

2. Glaze firing with build up technique

Caracterize the crown with **K2 stains zirconia** and fix with glaze firing with or without glaze masse.(see K2 advanced / glaze firing)
Not stratified press parts are glazed manually (Dia Glace).

Finished work after glaze firing

Consider firing parametres
(see firing table)!

Shade	Qty.	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4	Bleach	Gingiva
Powder Opaque O Art.-Nr. 320-15.. Art.-Nr. 320-50..		**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**	**BO**	**OG**
	15g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16	322-1500	320-1517
	50g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16		
Paste Opaque PO Art.-Nr. 321-03..		**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**	**POBO**	**POG**
	3g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16	322-0300	321-0317
Shoulder Art.-Nr. 324-15..		**SH1**		**SH2**		**SH3**			**SH4**			**SH5**			**SH6**	**SH7**		**SH G**	
	15g	..01		..02		..03			..04			..05				..06	..07	..20	
Dentine D Art.-Nr. 325-20.. Art.-Nr. 325-50..		**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**	**BD**	**G** (15g)
	20g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16	326-2000	338-1500
	50g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16	326-5000	
Chroma Art.-Nr. 327-15.. Art.-Nr. 327-50..		**CH A**				**CH B**						**CH C**				**CH D**			
	15g	..01				..02						..03				..04			
	50g	..01				..02						..03				..04			
Opaque Dentine OD Art.-Nr. 323-15.. Art.-Nr. 323-50..		**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**		
	15g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16		
	50g	..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16		
Enamel Art.-Nr. 328-20.. Art.-Nr. 328-50..		**E 57**				**E 58**						**E 59**				**E 60**			
	20g	..01				..02						..03				..04			
	50g	..01				..02						..03				..04			
Enamel Opal Art.-Nr. 330-20.. Art.-Nr. 330-50..		**EO 57**				**EO 58**			**EO 59**				**EO 60**						
	20g	..01				..02			..03				..04						
	50g	..01				..02			..03				..04						
Enamel Intensiv Art.-Nr. 329-20.. Art.-Nr. 329-50..		**EI T1** (transpa)				**EI T2** (transpa)			**EI O3** (opaque)				**EI O4** (opaque)						
	20g	..01				..02			..03				..04						
	50g	..01				..02			..03				..04						
Transparent Art.-Nr. ...-.... Art.-Nr. ...-....		**TN** (normal)				**TO** (opal)			**T1**				**T2**				**T3**		
	20g	332-2000				333-2000			334-2001				334-2002				334-2003		
	50g	332-5000				333-5000			334-5001				334-5002				334-5003		
Clear	**20g / 50g**			**CL**					**20g** = Art.-Nr. 335-2000							**50g** = Art.-Nr. 335-5000			
Glaze	**10g**			**GL**					**10g** = Art.-Nr. 336-1000										
K2 Fluor Art.-Nr. 331-15..						**PF 1**									**PF 2**				
	15g					..01									..02				
Mamelon Art.-Nr. 339-15..				**MM 1**					**MM 2**							**MM 3**			
	15g			..01					..02							..03			
Bonder	**5g**					**B**			**5g** = Art.-Nr. 337-0500										

YETI K2 LF

	Starttemperatur Preheating temp	**Trocknungszeit** Dry time	**Temperaturanstieg** Raise of temp	**Vakuum** Vacuum	**Endtemperatur** Final temp	**Haltezeit** Hold Time	**Oberflächencharakter** Character Surface
Oxidbrand Oxidation	**Nach Angaben der Legierungshersteller!** Refer to the alloy manufacturer's!						
1. Opakerbrand / Pulver* 1. Opaque firing / powder*	**450°C** 842°F	**3 min**	**75°C / min** 167°F / min	**ja / yes**	**950°C** 1742°F	**1 min**	**glänzend / shining**
2. Opakerbrand / Pulver 2. Opaque firing / powder	**450°C** 842°F	**3 min**	**75°C / min** 167°F / min	**ja / yes**	**940°C** 1724°F	**1 min**	**glänzend / shining**
Schulterbrände Shoulder firings	**430°C** 806°F	**3 min**	**45°C / min** 113°F / min	**ja / yes**	**810°C** 1490°F	**1 min**	**glänzend / shining**
1. Dentinbrand 1. Dentin firing	**400°C** 752°F	**6 min**	**40°C / min** 104°F / min	**ja / yes**	**770°C** 1418°F	**1 min**	**glänzend / shining**
2. Dentinbrand 2. Dentin firing	**400°C** 752°F	**6 min**	**40°C / min** 104°F / min	**ja / yes**	**760°C** 1400°F	**1 min**	**glänzend / shining**
Glanzbrand Glaze firing	**450°C** 842°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**770°C** 1418°F	**1 min**	**glänzend / shining**
Glanzbrand mit Glasur Glaze firing with powder	**450°C** 842°F	**3 min**	**45°C / min** 113°F / min	**nein / no**	**750°C** 1382°F	**1 min**	**glänzend / shining**

*** Bei Verwendung von NEM, Endtemperatur 970° C** / For non Precious alloys final temperature 970° C / 1778°F
Bei Verwendung von Pastenopaquer, Trocknungszeit 6-8 Minuten / *With Pasteopaque the drying time has to be 6-8 Minutes*

Brennempfehlungen sind Richtwerte und müssen der jeweiligen Ofensituation angepasst werden ! Entscheidend ist das Brennergebnis !
Vor Anwendung Brennofen kalibrieren und ein Reinigungsbrand bei max. Brenntemperatur ohne Vakuum/ 5 Minuten durchführen !
Firing Parameters are Guidelines and need to be adjusted to the situation of the furnace ! The right firing result is important !
The furnace has to be calibrated and a cleaning firing by max. Temperatur without Vacuum/ 5 Minutes has to be done !

K2 LF	Schmelz Zuordnungstabelle / Enamel colours classification								
Farbe / Shade	A1	A2	A3	A3,5	A4	B1	B2	B3	B4
Dentin / Dentine	A1	A2	A3	A3,5	A4	B1	B2	B3	B4
Schneidemassen Enamel	E58	E58	E59	E59	E60	E57	E59	E59	E59
Farbe / Shade	C1	C2	C3	C4	D2	D3	D4		
Dentin / Dentine	C1	C2	C3	C4	D2	D3	D4		
Schneidemassen Enamel	E60	E59	E59	E60	E60	E59	E59		

Physikalische Eigenschaften Physical Properties	**Maßeinheit**	**Wert K2 LF**
WAK (25 - 500°) WAK (25 - 500°)	$10^{-6}K^{-1}$	11,8
Transformationspunkt Glass Transition Temperature	°C	515
Löslichkeit / Solubility	$\mu g/cm^2$	16
Dichte / Density	g/cm^2	2,6
Biegefestigkeit / Flexural Strength	MPa	92
Mittlere Korngröße / Median Particle Size	my	20
Haftverbund / Bonding Strength	MPa	55

K2 LF	Mischungstabelle Schultermassen / Mixing table for shoulder powder															
Farbe / Shade		A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Schultermassen Shoulder	SH1				2	2				3	3						
	SH2			1			1	1									1
	SH3	2	3	1	1	1			1	2							
	SH4	1	1	1	1	3	1	1	1	2					1	1	
	SH5																
	SH6	3					3	2	1		2	1	2		3	2	2
	SH7										3	2	5	1	2	2	3

YETI K2 press

	Starttemperatur Preheating temp	**Trocknungszeit** Dry time	**Temperaturanstieg** Raise of temp	**Vakuum** Vacuum	**Endtemperatur** Final temp	**Haltezeit** Hold Time	**Anwendungsbereich** Indication
Oxidbrand Oxidation	**Nach Angaben der Legierungshersteller!** Refer to the alloy manufacturer's!						
1. Opakerbrand / Pulver* 1. Opaque firing / powder*	**450°C** 842°F	**3 min**	**75°C / min** 167°F / min	**ja / yes**	**950°C** 1742°F	**1 min**	**Press over Metall** PoM
2. Opakerbrand / Pulver 2. Opaque firing / powder	**450°C** 842°F	**3 min**	**75°C / min** 167°F / min	**ja / yes**	**940°C** 1724°F	**1 min**	
1. Dentinbrand 1.Dentin firing	**400°C** 752°F	**6 min**	**40°C / min** 104°F / min	**ja / yes**	**770°C** 1418°F	**1 min**	
2. Dentinbrand 2.Dentin firing	**400°C** 752°F	**6 min**	**40°C / min** 104°F / min	**ja / yes**	**760°C** 1400°F	**1 min**	**Schichttechnik auf Presskeramik** Layering technik on Press Ceramic
Glanzbrand Glaze firing	**450°C** 842°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**770°C** 1418°F	**1 min**	
Glanzbrand mit Glasur Glaze firing with powder	**450°C** 842°F	**3 min**	**45°C / min** 113°F / min	**nein / no**	**750°C** 1382°F	**1 min**	
Malfarbenbrände Stains firings	**450°C** 842°F	**3 min**	**45°C / min** 113°F / min	**nein / no**	**750°C** 1382°F	**1 min**	**Maltechnik auf Presskeramik** Stain on Press Ceramic
Glasur Glaze	**450°C** 842°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**740°C** 1354°F	**1 min**	

*** Bei Verwendung von NEM, Endtemperatur 970° C** / For non Precious alloys final temperature 970° C / 1778°F

Brennempfehlungen sind Richtwerte und müssen der jeweiligen Ofensituation angepasst werden ! Entscheidend ist das Brennergebnis !
Vor Anwendung Brennofen kalibrieren und ein Reinigungsbrand bei max. Brenntemperatur ohne Vakuum/ 5 Minuten durchführen !
Firing Parameters are Guidelines and need to be adjusted to the situation of the furnace ! The right firing result is important !
The furnace has to be calibrated and a cleaning firing by max. Temperatur without Vacuum/ 5 Minutes has to be done !

K2 press: Table of contents for pressable ceramic ingots

V, I, O	K	PoM	Qty.	Fluor	Opazität	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4	Bleach D
X	XX	XX	4x**2 g**	XX	**75 %**	**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2** ´	**D3**	**D4**	**BD**
		Art.-Nr. 350-08..				..01	..02	..03	..04	..05	..06	..07	..08	..09	..10	..11	..12	..13	..14	..15	..16	..17
X	XX	XX	4x**2 g**	XX	**60 %**	**TA1**	**TA2**	**TA3**			**TB1**	**TB2**	**TB3**		**TC1**	**TC2**			**TD2**			
		Art.-Nr. 350-08..				..18	..19	..20			..21	..22	..23		..24	..25			..26			
X	XX	XX	3x**5 g**	XX	**60 %**	**TA1**	**TA2**	**TA3**			**TB1**	**TB2**	**TB3**		**TC1**	**TC2**			**TD2**			
		Art.-Nr. 350-15..				..01	..02	..03			..04	..05	..06		..07	..08			..09			

XX	X	X	4x**2 g**	X	**45 %**	**T1+**	**T2+**	**T3+**	**T4+**
		Art.-Nr. 350-08..				..27	..28	..29	..30
XX	XX	X	4x**2 g**	X	**40 %**	**S57**	**S58**	**S59**	**S60**
		Art.-Nr. 350-08..				..35	..36	..37	..38
XX	X	X	4x**2 g**	X	**35 %**	**T1**	**T2**	**T3**	**T4**
		Art.-Nr. 350-08..				..31	..32	..33	..34

V, I, O = Veneer, Inlay, Onlay
K = Kronen, *crowns*
PoM = Press over Metall

Bei Presslingen welche mit K2 LF weitergeschichtet werden empfehlen wir Rohlinge mit höherer Opazität.
Bei Presslingen welche anschließend nur bemalt werden oder für das Press over Metall (PoM) Verfahren benutzt werden, empfehlen wir die transparenteren Dentine.
Die generellen Einschätzungen müssen jedoch vor Ort nach Situation und Defekten der Restbezahnung getroffen werden.

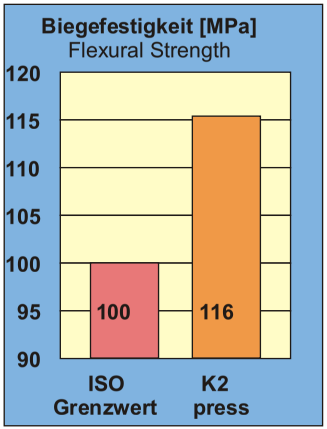
We suggest to use ingots with higher opacity when adding K2 LF Ceramic on to the pressable ceramic crowns.
We suggest to use transparent Dentine Ingots when painting the pressable ceramic crowns and for Press over Metal (PoM).
The final decision is to be taken depending on the situation of the Patient's teeth during the chairside.

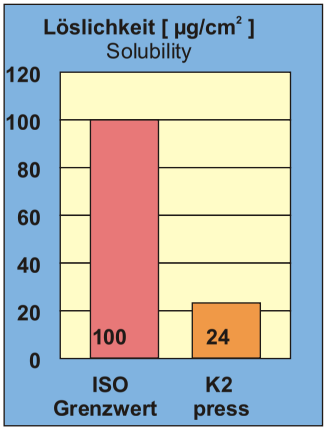
Richtwerte / Pressparameter / standard value

Muffelgröße / muffle size	**100g / 200g**	**300g**
Starttemperatur Preheating temp	**700°C** 1292°F	**700°C** 1292°F
Aufheizrate Heat Rate	**60°C / min** 140°F / min	**60°C / min** 140°F / min
Endtemperatur Final temp	**950°C** 1742°F	**975°C** 1787°F
Haltezeit / Holding Time	**20 min**	**25 min**
Presszeit / Injection Time	**10 min**	**12 min**
Vakuum / Vakuum	**max.**	**max.**
Pressdruck Injection Moulding Pressure	**4,5 - 5,0 bar** 65 - 72 psi	**4,5 - 5,0 bar** 65 - 72 psi

Abweichungen durch unterschiedliche Ofenleistungen möglich!
Bitte dementsprechend anpassen!
Please conider and adjust the power rating due to possible discrepancies of the furnace!

K2 press	**Schmelz Zuordnungstabelle** / Enamel colours classification															
Farbe / Shade	**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**
Dentin Dentine	**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**
Schneidemassen Enamel	**S58**	**S58**	**S59**	**S59**	**S60**	**S57**	**S59**	**S59**	**S59**	**S60**	**S59**	**S59**	**S60**	**S60**	**S59**	**S59**





Physikalische Eigenschaften Physical Properties	**Maßeinheit**	**Wert K2 press**
WAK (25 - 500°) WAK (25 - 500°)	**$10^{-6}K^{-1}$**	**13,1**
Transformationspunkt Glass Transition Temperature	**°C**	**585**
Löslichkeit / Solubility	**µg/cm²**	**24**
Biegefestigkeit / Flexural Strength	**MPa**	**116**
Mittlere Korngröße / Median Particle Size	**my**	**23**

Shade	Qty.	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4	Bleach	Gingiva
Frame Liner Art.-Nr. 370-20..	20g			FL-1 ..01						FL-2 ..02						FL-3 ..03			
Frame Liner Art.-Nr. 371-20..	20g									FL-PoZ ..01									
Shoulder Art.-Nr. 372-20..	20g		SH1 ..01		SH2 ..02		SH3 ..03			SH4 ..04		SH5 ..05			SH6 ..06			SH7 ..07	SH G ..08
Dentine Art.-Nr. 373-20..	20g	A1 ..01	A2 ..02	A3 ..03	A3,5 ..04	A4 ..05	B1 ..06	B2 ..07	B3 ..08	B4 ..09	C1 ..10	C2 ..11	C3 ..12	C4 ..13	D2 ..14	D3 ..15	D4 ..16	BD ..17	G ..18
Chroma Art.-Nr. 374-20..	15g			CH A ..01				CH B ..02				CH C ..03				CH D ..04			
Opaque Dentine Art.-Nr. 375-20..	15g		OD-1 ..01				OD-2 ..02				OD-3 ..03				OD-4 ..04				OD-5 ..05
Enamel Art.-Nr. 376-20..	20g			E 57 ..01				E 58 ..02				E 59 ..03				E 60 ..04			
Enamel Opal Art.-Nr. 377-20..	20g			EO 57 ..01				EO 58 ..02				EO 59 ..03				EO 60 ..04			
Enamel Intensiv Art.-Nr. 378-20..	20g			EI T1 (transpa) ..01				EI T2 (transpa) ..02				EI O3 (opaque) ..03				EI O4 (opaque) ..04			
Transparent Art.-Nr. 379-20..	20g		TN (normal) ..01				TO (opal) ..02				T1 ..03				T2 ..04				T3 ..05
Clear	20g								CL	Art.-Nr. 380-2001									
Glaze	10g								GL	Art.-Nr. 380-2002									
K2 Fluor Art.-Nr. 381-20..	15g						PF 1 ..01								PF 2 ..02				
Mamelon Art.-Nr. 382-20..	15g			MM 1 ..01						MM 2 ..02							MM 3 ..03		

YETI K2 zircon

	Starttemperatur Preheating temp	Trocknungszeit Dry time	Temperaturanstieg Raise of temp	Vakuum Vacuum	Endtemperatur Final temp	Haltezeit Hold Time	Oberflächencharakter Character Surface
Schulterbrand Shoulder firing	**450°C** 842°F	**4 min**	**45°C / min** 113°F / min	**ja / yes**	**830°C** 1526°F	**1 min**	**glänzend / shining**
Linerbrand Liner firing	**450°C** 842°F	**4 min**	**55°C / min** 131°F / min	**ja / yes**	**800°C** 1472°F	**1 min**	**glänzend / shining**
1. Dentinbrand 1. Dentin firing	**450°C** 842°F	**6 min**	**45°C / min** 113°F / min	**ja / yes**	**810°C** 1490°F	**1 min**	**glänzend / shining**
2. Dentinbrand 2. Dentin firing	**450°C** 842°F	**6 min**	**45°C / min** 113°F / min	**ja / yes**	**800°C** 1472°F	**1 min**	**glänzend / shining**
Glanzbrand Glaze firing	**480°C** 896°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**820°C** 1508°F	**1 min**	**glänzend / shining**
Glanzbrand mit Glasur Glaze firing with powder	**480°C** 896°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**790°C** 1454°F	**1 min**	**glänzend / shining**

Brennempfehlungen sind Richtwerte und müssen der jeweiligen Ofensituation angepasst werden ! Entscheidend ist das Brennergebnis !
Vor Anwendung Brennofen kalibrieren und ein Reinigungsbrand bei max. Brenntemperatur ohne Vakuum/ 5 Minuten durchführen !
Firing Parameters are Guidelines and need to be adjusted to the situation of the furnace ! The right firing result is important !
The furnace has to be calibrated and a cleaning firing by max. Temperatur without Vacuum/ 5 Minutes has to be done !

K2 zircon	**Schmelz Zuordnungstabelle** / Enamel colours classification															
Farbe / Shade	**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**
Liner / Liner	**L-2**	**L-2**	**L-2**	**L-3**	**L-2**	**L-1**	**L-3**	**L-3**	**L-3**	**L-1**	**L-2**	**L-2**	**L-2**	**L-1**	**L-2**	**L-3**
Dentin / Dentine	**A1**	**A2**	**A3**	**A3,5**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D2**	**D3**	**D4**
Schneidemassen / Enamel	**E58**	**E58**	**E59**	**E59**	**E60**	**E57**	**E59**	**E59**	**E59**	**E60**	**E59**	**E59**	**E60**	**E60**	**E59**	**E59**

K2 zircon — Mischungstabelle Schultermassen / Mixing table for shoulder powder

Farbe / Shade	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Schultermassen Shoulder — SH1				2	2			3	2							
SH2			1			1	1									1
SH3	2	3	1	1	1			1	1							
SH4	1	1	1	1	3	1	1	1						1	1	
SH5																
SH6	3					3	1	1		2	1	1		3	1	1
SH7									1	3	2	5	1	2	2	4

K2 zircon — Mischungstabelle Opakdentin / Mixing table for Opaque Dentin

Farbe / Shade	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Opakdentin Opaque Dentin — OD1		1		1					2							
OD2							1	2							1	
OD3			1		1											
OD4	1	2	2	2	1	1	4	2	2	4	3	2	1	6	3	3
OD5				1	1		1	1	1	1	1	1	1	1	1	2

Table of contents for pressable ceramic ingots zircon

K	PoZ	Qty.	Fluor	Opazität	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4	Bleach D
XX	XX	4x**2 g**	XX	**75 %**	**A1**	**A2**	**A3**			**B1**	**B2**	**B3**		**C1**	**C2**			**D2**			**BD**
Art.-Nr. 390-08..					..01	..02	..03			..06	..07	..08		..10	..11	.		..14			..17
XX	XX	4x**2 g**	XX	**60 %**	**TA1**	**TA2**	**TA3**			**TB1**	**TB2**	**TB3**		**TC1**	**TC2**			**TD2**			
Art.-Nr. 390-08..					..18	..19	..20			..21	..22	..23		..24	..25			..26			
XX	XX	3x**5 g**	XX	**60 %**	**TA1**	**TA2**	**TA3**			**TB1**	**TB2**	**TB3**		**TC1**	**TC2**			**TD2**			
Art.-Nr. 390-15..					..01	..02	..03			..04	..05	..06		..07	..08			..09			

K = crown
PoZ = Press over Zirkon

Bei Presslingen welche mit K2 Zirkon weitergeschichtet werden empfehlen wir Rohlinge mit höherer Opazität.
Bei Presslingen welche anschließend nur bemalt werden oder für das Press over Zirkon (PoZ) Verfahren benutzt werden, empfehlen wir die transparenteren Dentine.
Die generellen Einschätzungen müssen jedoch vor Ort nach Situation und Defekten der Restbezahnung getroffen werden.

We suggest to use ingots with higher opacity when adding K2 zircon Ceramic on to the pressable ceramic crowns.
We suggest to use transparent Dentine Ingots when painting the pressable ceramic crowns and for Press over Zircon (PoZ).
The final decision is to be taken depending on the situation of the Patient's teeth during the chairside.

K2 zircon press: **Richtwerte / Pressparameter** / standard value			
Muffelgröße / muffle size	**100g**	**200g**	**300g**
Starttemperatur Preheating temp	**800°C** 1472°F	**800°C** 1472°F	**800°C** 1472°F
Aufheizrate Heat Rate	**60°C / min** 140°F / min	**60°C / min** 140°F / min	**60°C / min** 140°F / min
Endtemperatur Final temp	**950°C** 1742°F	**980°C** 1796°F	**1010°C** 1850°F
Haltezeit / Holding Time	**20 min**	**20 min**	**20 min**
Presszeit/ Injection Time	**10 min**	**12 min**	**17 min**
Vakuum / Vakuum	**max.**	**max.**	**max.**
Pressdruck Injection Moulding Pressure	**4,5 - 5,0 bar** 65 - 72 psi	**4,5 - 5,0 bar** 65 - 72 psi	**4,5 - 5,0 bar** 65 - 72 psi

Abweichungen durch unterschiedliche Ofenleistungen möglich!
Bitte dementsprechend anpassen!
Please conider and adjust the power rating due to possible discrepancies of the furnace!

YETI K2 zircon press

	Starttemperatur Preheating temp	**Trocknungszeit** Dry time	**Temperaturanstieg** Raise of temp	**Vakuum** Vacuum	**Endtemperatur** Final temp	**Haltezeit** Hold Time	**Oberflächencharakter** Character Surface
Linerbrand Liner firing	**450°C** 842°F	**2 min**	**55°C / min** 131°F / min	**ja / yes**	**900°C** 1652°F	**1 min**	**Press over Zircon** Press over Zirkon (PoZ)
1. Dentinbrand 1. Dentin firing	**450°C** 842°F	**6 min**	**45°C / min** 113°F / min	**ja / yes**	**810°C** 1490°F	**1 min**	**Schichttechnik auf Presskeramik** Layering technik on Zircon Press
2. Dentinbrand 2. Dentin firing	**450°C** 842°F	**6 min**	**45°C / min** 113°F / min	**ja / yes**	**800°C** 1472°F	**1 min**	
Glanzbrand Glaze firing	**480°C** 896°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**820°C** 1508°F	**1 min**	
Glanzbrand mit Glasur Glaze firing with powder	**480°C** 896°F	**2 min**	**45°C / min** 113°F / min	**nein / no**	**800°C** 1472°F	**1 min**	
Malfarbenbrände Stains firings	**450°C** 842°F	**4 min**	**45°C / min** 113°F / min	**nein / no**	**810°C** 1490°F	**1 min**	**Maltechnik auf Presskeramik** Stain on Zircon Press Ceramic
Glasur Glazer	**450°C** 842°F	**4 min**	**45°C / min** 113°F / min	**nein / no**	**800°C** 1472°F	**1 min**	

Brennempfehlungen sind Richtwerte und müssen der jeweiligen Ofensituation angepasst werden! Entscheidend ist das Brennergebnis! Vor Anwendung Brennofen kalibrieren und ein Reinigungsbrand bei max. Brenntemperatur ohne Vakuum/ 5 Minuten durchführen!

Firing Parameters are Guidelines and need to be adjusted to the situation of the furnace! The right firing result is important! The furnace has to be calibrated and a cleaning firing by max. Temperatur without Vacuum/ 5 Minutes has to be done!

Physikalische Eigenschaften Physical Properties	**Maßeinheit**	**Wert K2 zirkon**	**Wert K2 zirkon press**
WAK (25 - 500°)	**$10^{-6}K^{-1}$**	**9,5**	**9,5**
Transformationspunkt Glass Transition Temperature	**°C**	**550**	**550**
Löslichkeit / Solubility	**µg/cm²**	**16**	**18**
Biegefestigkeit / Flexural Strength	**MPa**	**123**	**>105**
Mittlere Korngröße / Median Particle Size	**my**	**46**	

Trouble Shooting

Problem	Causes	Solution
Spots on surface after oxid firing	metal not clean	re-polish the surface and sandblast, repeat firing if necessary
Bubbles in the casting	excessive pressure when sandblasting, blasting at wrong angle	refer to the manufacturers instructions / 2-3 bar angle < 90°
	metal surface not clean	steam the frame properly and do not handle again
	opaque powder has been re-used	do not re-use opaque powder
Bubbles or blistering in the opaque paste	pre-drying time too short or temperature too high	refer to the manufacturers instructions
Fissures in the opaque paste	opaque applied too thickly or unevenly	apply the opaque more thinly and evenly. Do not dilute the paste with water, use a lightly moistened brush.
Dentin		
Fissures in the ceramic	powder applied too thickly	apply a maximum of 3mm thickness.
	material too dry during application	moisten slightly and do not over-work
Flaking after firing	mass is too dry during application	moisten slightly
	surface not clean leading to isolation	clean surface properly before application
Porosities on the Surface	layers too dry	moisten layers and apply less thickly

Problem	Cause	Solution
Fissures in the ceramic	framework not properly prepared	prepare the framework as per manufacturers instructions
	framework surface not clean	clean framework properly before firing
	WAK values not compatible	only use alloys with WAK between 13,8 and 14,9, remove rapidly from the oven and leave to cool for a longer period
Fissures diagonally to the tooth axis	Cobalt chrome alloy covered with paste opaque	use powder opaque to cover cobalt chrome alloy
Fissures parallel to the tooth axis	bridge elements not separated	separate the inter-dental spaces on the bridge leaving the base material
Bubbles in the ceramic	casting error	consult the manufacturers working instructions
	metal surface impure	re-steam the framework and handle with care
	overlap on the frame surface	always work the frame in the same direction
	use of paste opaque with alloys containing zinc	use only powder opaque for alloys containing zinc
Effect not natural	no vacuum in the oven	check vacuum pump, and consult working instructions
	firing temperature too low	Calibrate the oven using silver test, or test the temperature using samples of transparent material. This material should shine after firing and has not been completely fired if it does not.
	use of wrong modelling liquid	only K2 Modelling Liquid, should be used
Colour appears too light	too much enamel applied	ensure the enamel is applied as per the schematic
Colour appears too grey	too much transpa porcelain applied	ensure the correct amount of transparent porcelain is applied

Problem	Cause	Solution
Metal edge is shining through the framework	metal edge not covered	cover the metal edge first with SH5 and then with the specific shoulder porcelain. SH1-SH4 and SH6, SH7 are fluorescent and SH5 is opaque.
The ceramic changes colour	firing chamber is contaminated	clean the oven or fire for 5 minutes process during 5 minutes using grafit. In general: clean the oven before using K2 and than once every month.
Black spots in the ceramic	masses contaminated with metal powder	keep workplace clean and each function separate
Black discolouration in the ceramic	stain mixed with glaze liquid	when using the stain powder mix only with modelling liquid
Marks on the surface after final firing	dust from polishing	clean properly before final firing

Press ceramic

Object not pressed completely	too few pellets used	measure the weight of the wax and determine the amount of pellets required
	Press temperature too low Press time too short Press force too little	check press parameters, calibrate the oven
Excess material on the edges	incorrect positioning of the sprues	on inlays with the edges outside, all modelling should be done at the same height, position the model and the sprue in line.
Excess material on the model and the press furnace	Fissures in the investment	follow working instructions carefully and ensure setting times kept

Problem	Cause	Solution
Cracks in the cylinder after pressing	pressure too high	check press parameters
	cylinder is not in the correct position	place the base of the cylinder at the correct angle in the furnace
Fissures in the ceramic	high pressure during finishing and separation use of incorrect instruments	avoid overheating of the ceramic and if working with diamond or sharp instruments use less pressure and cool with water
Inclusion of investment material	sprues are not fixed properly	avoid using excess material on edges and fix the sprues properly ensuring a smooth surface
White spots, porosity or discolouration	press temperature too high	check press parameters
	wax leaves residues	use Yeti VKS wax
Cracks after firing	incorrect firing guide	check press parameters
	Incorrect support used	place on a fibrous pad or special support for firing
Item does not fit after firing	firing temperature too high	check firing parameters
	minimum thickness not maintained	a minimum thickness of 0,8 mm should be maintained

K2 Zirconia Build up technique

Fissures in the bridge	too high span	firing with longer cooling time

PoZ

Inclusion of Liner In the pressing	Liner applied too thick	mix Liner aqueous and apply filmy
Colour ist too “legged”	Dentin ingot used	Stratify Dentin completely with transpa or enamel masse or use transpa-dentin ingot

Base - Kit Powder (Item no. 320-0000) in ceramic cabinet
16 x 15 g Opaque Powder (A1 - D4), 16 x 15 g Opaque dentin (A1 - D4), 16 x 20 g Dentin (A1 - D4), 4 x 20 g Enamel (E 57 - E 60), 4 x 20 g Enamel Opal (EO 57 - EO 60), 1 x 20 g Clear, 1 x 20 g Transpa Normal, 1 x 10g Glaze masse, 1 x 5 g Bonder, 1 x 50 ml Opaque Liquid, 1 x 50 ml Modelling Liquid, 1 x 25 ml Shoulder Liquid, 1 x 25 ml Glaze Fluid

Base - Kit Paste (Item no. 320-0000/2) in ceramic cabinet
16 x 15 g Paste opaque (A1 - D4), 16 x 15 g Opaque dentin (A1 - D4), 16 x 20 g Dentin (A1-D4), 4 x 20 g Enamel (E 57 - E 60), 4 x 20 g Enamel Opal (EO 57 - EO 60), 1 x 20 g Clear, 1 x 20 g Transpa Normal, 1 x 10g Glaze masse, 1 x 5 g Bonder, 1 x 50 ml Opaque Liquid, 1 x 50 ml Modelling Liquid, 1 x 25 ml Shoulder Liquid, 1 x 25 ml Glaze Fluid

Confidential - Kit (Item no. 320-0001)
1 x 15 g Opaque Powder A3, 1 x 20 g Enamel E 59, 1 x 2 g Bonder, 1 x 20 g Dentin A3, 1 x 10 g Glaze masse, 1 x 20 g Transpa Normal, 1 x 50 ml Modelling liquid, 1 x 25 ml Glaze Fluid

Advanced - Kit Powder (Item no. 320-0002) in ceramic cabinet
1 x 15 g Bleach Opaque, 1 x 15 g Opaque Gingiva Powder, 7 x 15 g Shoulder masse powder, 1 x 15 g Shoulder masse Gingiva (SH1 - Sh7), 1 x 20 g Bleach Dentin, 1 x 15 g Gingiva, 4 x 15 g Chroma Dentin (CH A - CH D), 1 x 20 g Transpa Opal, 3 x 20 g Transpa (T 1 - T3) 3 x 15 g Mamelon (MM 1 - MM3), 4 x 20 g Enamel Intensiv (T1, T2, O3, O4), 2 x 15 g K2 Fluor (PF 1, PF 2)

Stain - Kit (Item no. 320-0003) in ceramic cabinet
10 x 2 g Stain make-up (A - D und 5 - 10), 1 x 10 g Glaze masse, 1 x 25 ml Glaze Fluid

Press - Kit (Item no. 320-0004) in cardboard
Press Pellets each 4 x 2 g
(A1 - A3, B1 - B3, C1, C2, D2, BD, TA1 - TA3, TB1 - TB3, TC1, TC2, TD2 T1+ - T3+, T4+, T1 - T4, S57 - S60), 10 x 2g plunger

Shade guides
Item no. 320-0100 Dentin,Item no. 320-0200 Shoulder / Fluor / Intensiv / Chroma
Item no. 320-0300 Transpa / Enamel / Mamelon, Item no. 320-0400 Press Ingots Pellets

Stains

ST-A	Item no. 340-0201	ST-6	Item no. 340-0206
ST-B	Item no. 340-0202	ST-7	Item no. 340-0207
ST-C	Item no. 340-0203	ST-8	Item no. 340-0208
ST-D	Item no. 340-0204	ST-9	Item no. 340-0209
ST-5	Item no. 340-0205	ST-10	Item no. 340-0210

K2 Liquids

Opaque Liquid	50ml Item no. 341-0050,	250ml Item no. 341-0250
Modelling Liquid	50ml Item no. 342-0050,	250ml Item no. 342-0250
Schoulder Liquid	25ml Item no. 343-0025,	50ml Item no. 343-0050
Glaze Fluid GF	25ml Item no. 344-0025,	50ml Item no. 344-0050

Product - Assortment K2 zirconia and K2 zirconia press

Base Zirconia Kit Powder (Item no. 370-0000) in ceramic cabinet
3 x 20 g Frame Liner (FL1 - FL3), 5 x 15 g Opaque dentin (OD1 - OD5), 16 x 20 g Dentin (A1 - D4),
4 x 20 g Enamel (E 57 - E 60), 4 x 20 g Enamel Opal (EO 57 - EO 60), 1 x 20 g Clear,
1 x 20 g Transpa Normal, 1 x 10 g Glaze masse, 1 x 50 ml Modelling Liquid,
1 x 25 ml Shoulder Liquid, 1 x 25 ml Glaze Fluid

Confidential Zirconia Kit (Item no. 370-0001)
1 x 20 g Frame Liner FL1, 1 x 20 g Enamel E 59, 1 x 20 g Dentin A3,
1 x 10 g Glaze masse, 1 x 20 g Transpa Normal, 1 x 50 ml Modelling liquid,1 x 25 ml Glaze Fluid

Advanced Zirconia Kit (Item no. 370-0002) in ceramic cabinet
7 x 20 g Shoulder masse Powder (SH1 - SH7), 1 x 20 g Shoulder masse Gingiva, 1 x 20 g Bleach Dentin, 1 x 20 g Gingiva, 4 x 15 g Chroma Dentin (CH A - CH D), 1 x 20 g Transpa Opal,
3 x 20 g Transpa (T1 - T3), 3 x 15 g Mamelon (MM 1 - MM3),
4 x 20 g Enamel Intensiv (T1, T2, O3, O4), 2 x 15 g K2 Fluor (PF 1, PF 2)

Stain Zirconia Kit (Item no. 370-0003) in ceramic cabinet
10 x 2 g Stain make-up (A - D and 5 - 10), 1 x 10 g Glaze masse, 1 x 25 ml Glaze Fluid

Press Zirconia Kit (Item no. 370-0004) in cardboard Karton
Press Pellets each 4 x 2 g
(A1 - A3, B1 - B3, C1, C2, D2, BD, TA1 - TA3, TB1 - TB3, TC1, TC2, TD2),
10 x 2g plunger

Stains

ST-A	Item no. 383-0201	ST-6	Item no. 383-0206
ST-B	Item no. 383-0202	ST-7	Item no. 383-0207
ST-C	Item no. 383-0203	ST-8	Item no. 383-0208
ST-D	Item no. 383-0204	ST-9	Item no. 383-0209
ST-5	Item no. 383-0205	ST-10	Item no. 383-0210

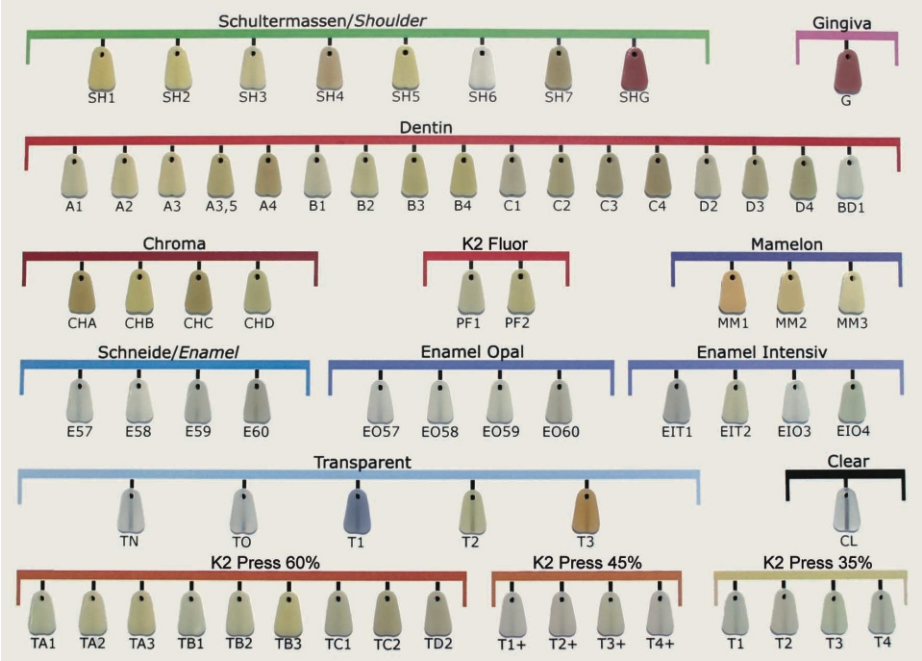
K2 Liquids
Modelling Liquid 25ml Item no. 384-0025, 50ml Item no. 384-0050, 250ml Item no. 384-0250
Schoulder Liquid 25ml Item no. 385-0025, 50ml Item no. 385-0050
Glaze Fluid GF 25ml Item no. 386-0025, 50ml Item no. 386-0050

Product - Assortment accessories

Ceramic cabinet
Item no. 320-0010 ceramic cabinet 4-cases grey/white (Standard)
Item no. 320-0011 ceramic cabinet 1-case grey/white (to add)

Investment material K2 press and K2 press zirkonia
Item no. 360-0100 K2 press investment powder 40x100g
Item no. 360-0750 K2 press Liquid 750 ml

Socle and muffle
Item no. 350-0701 SILICONE CILINDRE small, 100g + base complete
Item no. 350-0703 SILICONE CILINDRE medium, 200g + base complete
Item no. 350-0706 SILICONE CILINDRE large, 300g + base complete



The tecnical data as well as the examples given are experience values without commitment of the company YETI Dental. They do not lodge a claim on completeness and accuracy. The use of the individual masses and the application of the ceramic are different from case to case and based on the patient. Particularly our firing suggestions are pure standard values and have to be adjusted as per the situation and case. Avoid inhalation of the ceramic powder. We recommend protection for mouth and face and working on an exhauster.

For tecnical assistance please contact us under phone number 0049-7733-9410-20.

Important: Our products should be used according to the working instructions. We cannot be held liable for damages resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to ist suitability for the intended area of applications. We cannot accept any liability if the product is used in conjunction with porcelains and equipment from other manufacturers which are not compatible or not authorized for use with our product. Furthermore, our liability for the correctness of this information is independent of the legal ground and, in as fas as legally permissible, is limited to the invoiced value of the goods supplied excluding turnover tax. In particular, as far as legally permissible, we do not assume any liability for profit loss, for indirect damages, for consequential damages or for claims of third parties against the purchaser. Claims for damages based on fault liability (culpa in contrahendo, breach of contract, unlawful acts, etc.) can only be made in the case of intent or gross negligence. With the publication of this instructions all other data is null and void!

All information is subjected to alteration without notice!

- natural light dynamic
- homogeneous surface
- comfortable abrasion values
- economic - results-oriented

K2

the leucite ceramic

YETI DENTAL

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