

# Setting Parameters

## Dental Wings for cara production service

As of 09.2018

### Important Information:

- Observe the Processing Guides of the materials.
- Please put a tick to “Merge Surfaces” during the construction, or in the Menu under “Material Management > Manufacturing Parameters > Merge Surfaces”.
- Set output format as “STL” when sending constructions to the cara Production Centre.
- Do not use an individual path of insertion if you are working with the Wieland format 4.0. These cannot be processed in the cara Production Center.

Software Setting Options (all figures in mm):

### cara C&B Zr high translucent esthetic – A1, A2, A3, A3.5, B1, B2, B3, C2, D3

Zr HTE

Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.3 – 0.4	0.3	75 – 100°	–	0.6
3-unit-Bridge	0.01	0.04 – 0.05	0.04 – 0.05	1.0	0.4 – 0.5	0.3	70 – 90°	7 – 9	0.6
Inlays/Onlays/Veneers	0.03	0.04 – 0.05	0.04 – 0.05	0.5 – 1.0	0.3 – 0.4	≥ 0.3	75 – 100°	–	0.6
Primary Telescope	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.4	0.3	45 – 80°	–	0.6

### cara C&B Zr high translucent – A1, A2, A3, A3.5, B1, B2, B3, C2, D3

Zr HT

Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.3 – 0.4	0.3	75 – 100°	–	0.6
3 – 4-unit-Bridge	0.01	0.04 – 0.05	0.04 – 0.05	1.0	0.4 – 0.5	0.3	70 – 90°	7 – 9	0.6
5-unit-Bridge	0.02	0.06 – 0.07	0.06 – 0.07	1.0	0.5	0.3	70 – 90°	8 – 9	0.6
6 – 16-unit-Bridge	0.02	0.07 – 0.08	0.07 – 0.08	1.0	0.6	0.3	65 – 90°	≥ 9	0.6
Inlays/Onlays/Veneers	0.03	0.04 – 0.05	0.04 – 0.05	0.5 – 1.0	0.3 – 0.4	≥ 0.3	75 – 100°	–	0.6
Primary Telescope	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.4	0.3	45 – 80°	–	0.6

Giving a hand to oral health.


**KULZER**  
 MITSUI CHEMICALS GROUP

**cara C&B Zr – white, B-light and A-intensive**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.010	0.030 – 0.040	0.030 – 0.040	1.0	0.3 – 0.4	0.2	75 – 100°	–	0.6
3 – 4-unit-Bridge	0.010	0.040 – 0.050	0.040 – 0.050	1.0	0.4 – 0.5	0.2	70 – 90°	7 – 9	0.6
5-unit-Bridge	0.015	0.040 – 0.060	0.040 – 0.060	1.0	0.5	0.2	70 – 90°	8 – 9	0.6
6 – 16-unit-Bridge	0.015	0.060 – 0.085	0.060 – 0.085	1.0	0.6	0.2	65 – 90°	≥ 9	0.6
Inlays/Onlays/Veneers	0.030	0.040 – 0.050	0.040 – 0.050	0.5 – 1.0	0.3 – 0.4	≥ 0.2	75 – 100°	–	0.6
Primary Telescope	0.010	0.030 – 0.040	0.030 – 0.040	1.0	0.4	0.2	45 – 80°	–	0.6

**cara C&B Zr translucent – white WS and B-medium WS**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.010	0.030 – 0.040	0.030 – 0.040	1.0	0.3 – 0.4	0.3	75 – 100°	–	0.6
3 – 4-unit-Bridge	0.010	0.040 – 0.050	0.040 – 0.050	1.0	0.4 – 0.5	0.3	70 – 90°	7 – 9	0.6
5-unit-Bridge	0.015	0.040 – 0.060	0.040 – 0.060	1.0	0.5	0.3	70 – 90°	8 – 9	0.6
6 – 7-unit-Bridge	0.015	0.060 – 0.085	0.060 – 0.085	1.0	0.6	0.3	65 – 90°	≥ 9	0.6
Inlays/Onlays/Veneers	0.030	0.040 – 0.050	0.040 – 0.050	0.5 – 1.0	0.3 – 0.4	≥ 0.3	75 – 100°	–	0.6
Primary Telescope	0.010	0.030 – 0.040	0.030 – 0.040	1.0	0.4	0.3	45 – 80°	–	0.6

**cara C&B Zr translucent – light, medium and intensive**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.3 – 0.4	0.3	75 – 100°	–	0.6
3 – 4-unit-Bridge	0.01	0.04 – 0.05	0.04 – 0.05	1.0	0.4 – 0.5	0.3	70 – 90°	7 – 9	0.6
5-unit-Bridge	0.02	0.06 – 0.07	0.06 – 0.07	1.0	0.5	0.3	70 – 90°	8 – 9	0.6
6 – 7-unit-Bridge	0.02	0.07 – 0.08	0.07 – 0.08	1.0	0.6	0.3	65 – 90°	≥ 9	0.6
Inlays/Onlays/Veneers	0.03	0.04 – 0.05	0.04 – 0.05	0.5 – 1.0	0.3 – 0.4	≥ 0.3	75 – 100°	–	0.6
Primary Telescope	0.01	0.03 – 0.04	0.03 – 0.04	1.0	0.4	0.3	45 – 80°	–	0.6

**cara C&B Zr Multilayer – Shade A, Shade B and Shade C**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.010	0.030 – 0.040	0.030 – 0.040	1.0	0.4	0.3	75 – 100°	–	0.6
3 – 4-unit-Bridge	0.010	0.040 – 0.050	0.040 – 0.050	1.0	0.5	0.3	70 – 90°	7 – 9	0.6
5-unit-Bridge	0.015	0.040 – 0.060	0.040 – 0.060	1.0	0.5	0.3	70 – 90°	8 – 9	0.6
6 – 7-unit-Bridge	0.015	0.060 – 0.085	0.060 – 0.085	1.0	0.6	0.3	65 – 90°	≥ 9	0.6
Inlays/Onlays/Veneers	0.030	0.040 – 0.050	0.040 – 0.050	0.5 – 1.0	0.3 – 0.4	≥ 0.3	75 – 100°	–	0.6

**cara C&B Lithium Disilicate (Made of well-proven IPS e.max® CAD blanks by Ivoclar Vivadent)**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown Anterior tooth	0.005	0.03	0.03	1.5 – 3.0	See table with minimum wall thickness	0.4	75 – 100°	–	0.7
Premolar	0.005	0.03	0.03	1.5 – 3.0		0.4	75 – 100°	–	0.7
Molar	0.005	0.03	0.03	1.5 – 3.0		0.4	75 – 100°	–	0.7
Minimum wall thickness cara LiSi <sub>2</sub> *		Anterior tooth		Premolar		Molar			
Staining technique	Circular		1.2		1.5		1.5		
	Incisal/Occlusal		1.5		1.5		1.5		
Cutback technique (after reduction)	Circular		1.2		1.5		1.5		
	Incisal/Occlusal		0.4		1.0		1.3		

\* cara LiSi<sub>2</sub> frames are made of well-proven IPS e.max® CAD blanks by Ivoclar Vivadent.

Important: Avoid sharp edges and highly tapered margins. To avoid margin chipping, edge thicknesses and minimum wall thicknesses must be observed during construction. Always observe the general guidelines for all-ceramic preparations! Bear in mind the dimensions of cara LiSi<sub>2</sub>\* blanks! Width: 12 mm and Height: 14 mm

**Contra-indications:**

- Very deep subgingival preparations
- Patients with severely reduced residual dentition/bruxism
- All other applications not listed as indications



**cara C&B CoCr SLM/SLM anatomic\***

Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.025	0.10	0.10	1.5	0.40	0.18	75°	–	0.6
3 – 4-unit-Bridge	0.035	0.12	0.12	1.5	0.40	0.18 – 0.20	75°	5 – 7	0.6
5-unit-Bridge	0.035	0.12	0.12	1.5	0.40	0.20	75°	≥ 7	0.6
6 – 16-unit-Bridge	0.035	0.12	0.12	1.5	0.50	0.20	75°	≥ 8	0.6
Primary Telescope**	0.025	0.10	0.10	1.5	0.45	0.18	75°	–	0.6

\*\* Primary telescopes are not available in SLM anatomic\*.

**cara C&B CoCr milled**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0.01	0.02 – 0.03	0.02 – 0.03	1	0.35	0.1	65 – 100°	–	0.6
3 – 4-unit-Bridge	0.01	0.03 – 0.04	0.03 – 0.04	1	0.35	0.1	70 – 90°	5 – 6	0.6
5-unit-Bridge	0.01	0.04 – 0.05	0.04 – 0.05	1	0.40	0.1	70 – 90°	6 – 7	0.6
6 – 16-unit-Bridge	0.01	0.05 – 0.06	0.05 – 0.06	1	0.40	0.1	70 – 90°	> 7	0.6
Primary Telescope	0.01	0.02 – 0.03	0.02 – 0.03	1	0.40	0.1	40 – 90°	–	0.6

**cara Temp PMMA**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0	0.015	0.005	1	0.6 – 1.2	0.2	70 – 90°	–	0.6
3 – 4-unit-Bridge	0.010	0.040	0.040	1	0.6 – 1.2	0.2	70 – 90°	10 – 16	0.6
5-unit-Bridge	0.015	0.050 – 0.060	0.050 – 0.060	1	0.6 – 1.2	0.2	70 – 90°	10 – 16	0.6
6 – 16-unit-Bridge	0.015	0.060 – 0.070	0.060 – 0.070	1	0.6 – 1.2	0.2	65 – 90°	≥ 16	0.6
Primary Telescope	0	0.015	0.005	1	0.6 – 1.2	0.2	45 – 80°	–	0.6

**cara Cast PMMA**



Elements	Cement gap	Extra vertical gap	Extra horizontal gap	Collar line position	Minimum thickness	Margin thickness	Emergence angle	Connector thickness in mm <sup>2</sup>	Elliptic vertical radius & Elliptic radial radius
Crown	0	0.03	0.03	1	0.6 – 1.2	0.2	70°	–	0.6
3 – 4-unit-Bridge	0.010	0.04 – 0.05	0.04 – 0.05	1	0.6 – 1.2	0.2	70 – 90°	10 – 16	0.6
5-unit-Bridge	0.015	0.06	0.06	1	0.6 – 1.2	0.2	70 – 90°	10 – 16	0.6
6 – 16-unit-Bridge	0.015	0.07	0.07	1	0.6 – 1.2	0.2	65 – 90°	≥ 16	0.6
Primary Telescope	0	0.03	0.03	1	0.6 – 1.2	0.2	45 – 80°	–	0.6

The general safety regulations for handling dental products are applicable.

**Contact in Germany**  
 Kulzer GmbH  
 Leipziger Straße 2  
 63450 Hanau, Germany  
 cara-service@kulzer-dental.com