



Liaoning Rachcera Material Technology Co.,Ltd

Add:No.31-1-5, Changqing South Street, Hunnan New District,
Shenyang, Liaoning Province, P.R.C.

Web:www.rachcera-vip.com

Tel:0086 24 83463233

E-mail: www.rachcera-vip.com

RACHCERA

PRODUCT CATALOG

Lithium Disilicate Glass Ceramics



-Original Manufacturer-

ABOUT US

EXPEDITIOUS SHINING
EVERLASTING SMILING

Liaoning Rachcera Material Technology Co., Ltd is a global oral service provider specializing in the research and development, production, sales, services and comprehensive solutions of dental lithium disilicate glass ceramic materials .

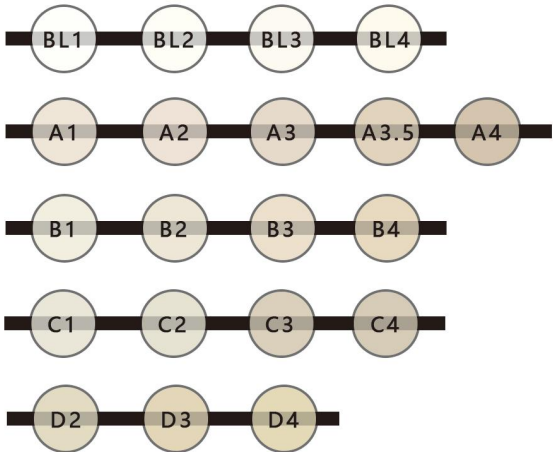
Since its establishment, Rachcera has always been committed to the R & D of lithium disilicate glass ceramic material, having an experienced and knowledgeable technical team composed of well-known Chinese biological experts; Meanwhile, it has also introduced 100 sets or so of advanced production equipment and automatic testing instruments successively. Over the years, Rachcera has developed elaborately the dental lithium disilicate glass ceramics which are suitable for the strength and hardness of oral environment, featuring good durability, excellent translucency, fluorescence and outstanding aesthetic effect. Adhering to the business philosophy of “Professionalism Makes Confidence, Quality Creates Future,” it attaches great importance to the quality and appearance of products by keeping close watch on the whole process of production and by applying strict testing standards, thus promoting steady improvement of our product quality.

At present, our products include dental lithium disilicate glass ceramics for CAD/CAM use , press ingot, CAD/CAM milling machines, milling burs, and other dental materials for dental labs and clinic use, which are suitable for chairside CAD&CAM immediate restorations., anterior crown, posterior crown, full crown bridge, veneer, inlay, onlay, and so on. Through years of market development, the company has accumulated a large number of domestic and foreign customers, establishing a global sales network. Our products have been exported to various countries and regions around the world, establishing the long-term cooperation with many dental labs.

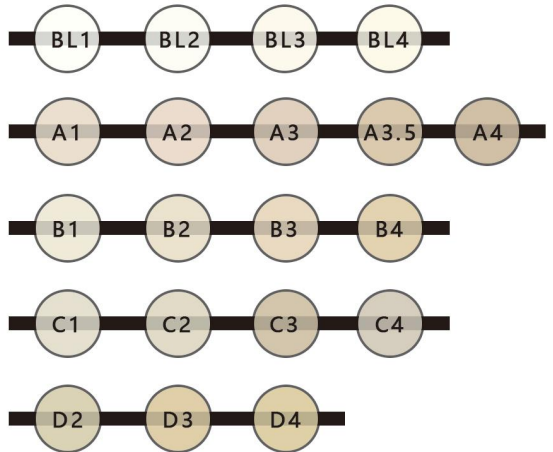
RACHCERA will take excellent product quality as its manufacturing core, maneuver the digital development of the oral industry together with dental labs, meet the users’ demands in the oral market, and provide comfortable diagnosis and treatment experience for patients in order to win the trust and support of more customers around the world!

Translucency

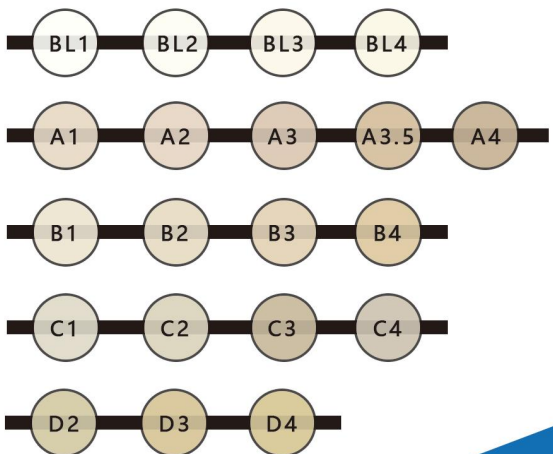
HT



MT



LT



MO



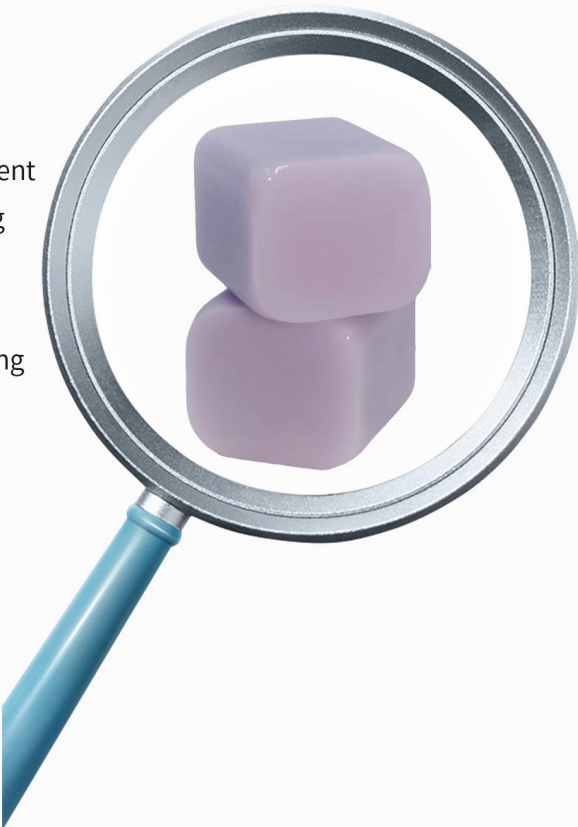
Specifications I

RACHCERA		Size (mm)	pcs/box
	C14	18*15*13	5pcs
	B40	40*15*15	4pcs
	I12	15*12*10	5pcs
	A16S	18.5*17.5*16	4pcs
	Press	D13*10	5/10pcs



Lithium Disilicate Glass Ceramics for CAD/CAM Use

Rachcera lithium disilicate blocks, made from excellent raw materials, apply the fine craftsmanship, featuring the simple and fast crystallization, perfect flexural strength and processibility as well as outstanding aesthetic effect. It has become the world's best-selling CAD&CAM chairside dental materials.



Bending Strength |

The average biaxial bending strength is 637 Mpa after full crystallization, higher than the standard strength value, set by ISO 6872:2015 For Dentistry-Ceramic Materials. Its superior strength can be used to make three-unit bridge in the area of molar.



637Mpa

ISO 6872:2015
Dentistry-Ceramic Materials

>300Mpa

Biaxial Bending Strength (Mpa)

Physical Properties |

Density(g/cm³)	2.4-2.7
Vickers hardness(MPa)	5400±400
Fracture toughness(MPa·m ^{1/2})	2.55
Coefficient of thermal expansion(10 ⁻⁶ K ⁻¹)	9.8±0.5
Crystallization temperature(°C)	830-840
Chemical solubility(μg·cm ⁻²)	30.3
Radioactivity(Bq/g)	<0.019

Chemical Composition |

SiO ₂	61%-71%
Li ₂ O	11%-17%
ZrO ₂	1%-5%
Other oxides	6%-30%

Biological Properties |

Cytotoxicity test	cytotoxicity level 0
Short-term systemic toxicity test (oral route)	no systemic toxicity
Sensitization test	no sensitization
Hemolysis test	hemolysis rate <5%
Ames test	negative for mutagenesis
Oral mucosa irritation test	no oral mucosa irritation
Subchronic Systemic Toxicity Test	not cause subchronic systemic toxicity

CAD/CAM

Lithium Disilicate Glass Ceramics(CAD/CAM)																										
Colors	Opacity					Colors	Shade-Bleach				Shade-A					Shade-B				Shade-C				Shade-D		
	MO-0	MO-1	MO-2	MO-3	MO-4		BL1	BL2	BL3	BL4	A1	A2	A3	A3.5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Translucency	MO	✓	✓	✓	✓	✓★	HT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Note: “✓” “stands for available colors. “✓+” for under preparation.							MT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							LT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Note: “✓” stands for available colors.
“✓★” for under preparation.

Homogeneity I

Smooth surface, uniform color,
no impurities and foreign matter.



RACHCERA

Indications



Veneer

Inlay

Onlay

Anterior crown

Posterior crown

Monolithic Bridge(≤3 Units)

Crystallization Curve I

Crystallization Procedure	Starting Temp.	Drying Time	Heating Time	Holding Temp.	Holding Time	Furnace Opening Temp.	Vacuum -on	Vacuum -off
	400°C	180s	40°C/min	840°C	7min	700°C	550°C	840°C

High translucency, demonstrating the natural color of the teeth.

High Translucency

High strength, suitable for various cases.

High Strength

advantages

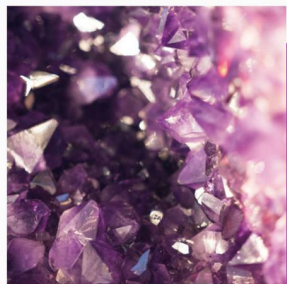
Easy to Mill

With the simple and easy operation, patients could experience a same day restoration.

Fast Restoration

Rapid crystallization, the first choice for immediate restorations.

Expeditious Shining Everlasting Smiling



As the only purple crystal block in Rachcera's product line, its mysterious and romantic color makes it deservedly the most noble and beautiful member. Considered a symbol of wisdom, it can help people open their minds and enhance their thinking and creativity.



HT-OM1 Purple Crystal



Golden yellow represents the wealth since ancient times. Golden amber is elegant, and while bringing fortune and the humans, coupled with its color, undoubtedly symbolizes harvest and Likewise, the eye-catching good luck to the nobility and wealth.



HT-OM2 Golden Amber



Peach is a color full of charm and vitality, it is not only a visual pleasure, but also an emotional and cultural symbol. Whether the peach color in nature or the peach imagery in culture and art, all make us full of expectations and imaginations of the world.



HT-OM3 Pinkish



Crystallization Procedure |

Crystallization Procedure	Starting Temp.	Drying Time	Heating Time	Holding Temp.	Holding Time	Furnace Opening Temp.	Vacuum -on	Vacuum -off
	400°C	180s	40°C/min	830°C	7min	550°C	550°C	830°C

RACHCERA

Reliable strength

Outstanding toughness

Time-saving

Natural appearance

No-sintering

Expeditious Shining Everlasting Smiling

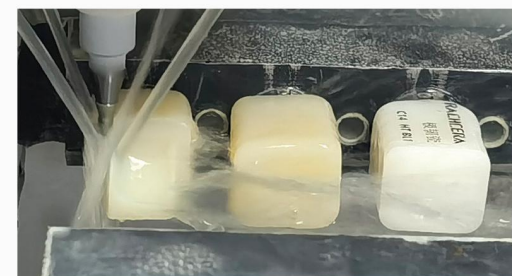
Pre-crystallization I

Sinter-free Lithium Disilicate Glass Ceramic block is characterized by exceptional toughness, superior machinability, efficient and rapid production process. Its unique advantage lies in eliminating the need for crystallization restoration, and it is able to show high level integrity and smoother edges after direct rapid polishing, which is resulting in natural aesthetic appeal. This innovation offers a groundbreaking "Instant Restoration" experience, redefining dental prosthesis efficiency.

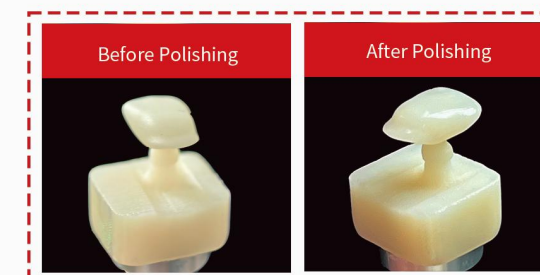
1 Scan & Design & Layout



2 Milling



3 Polishing/Glazing



or



4 Bonding



CAD/CAM

RACHCERA

Lithium Disilicate Glass Ceramics-Press Ingots

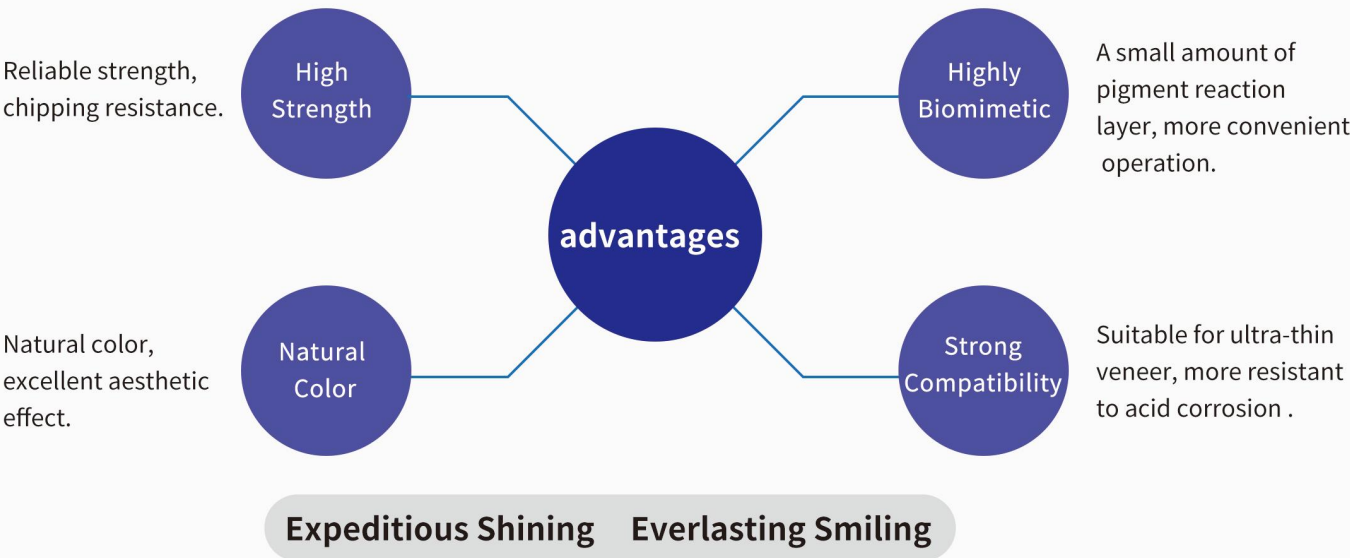
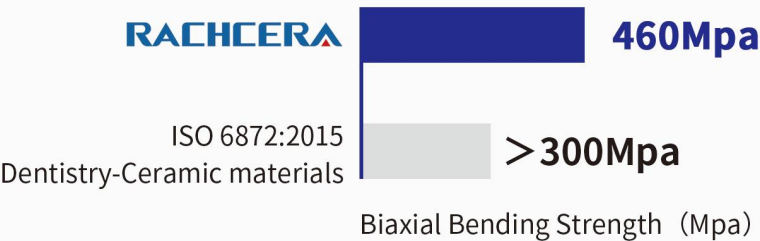
RACHCERA press ingots feature excellent translucency, natural color, highly biomimetic, strong compatibility and good adhesion. All-porcelain restorations made after being pressed can show more outstanding natural beauty.

Indications |



Bending Strength |

Its average biaxial bending strength is 460Mpa, higher than the standard strength value, set by ISO 6872:2015 Dentistry-Ceramic materials, and is suitable for single unit anterior or posterior restoration fabrication.



Physical Properties |

Density(g/cm³)	2.4-2.6
Vickers hardness(MPa)	5400±400
Fracture toughness(MPa.m ^{1/2})	2.55
Coefficient of thermal expansion(10 ⁻⁶ K ⁻¹)	9.8±0.5
Crystallization temperature(°C)	905-930
Chemical solubility(μg/cm²)	30.2
Radioactivity(Bq/g)	<0.019

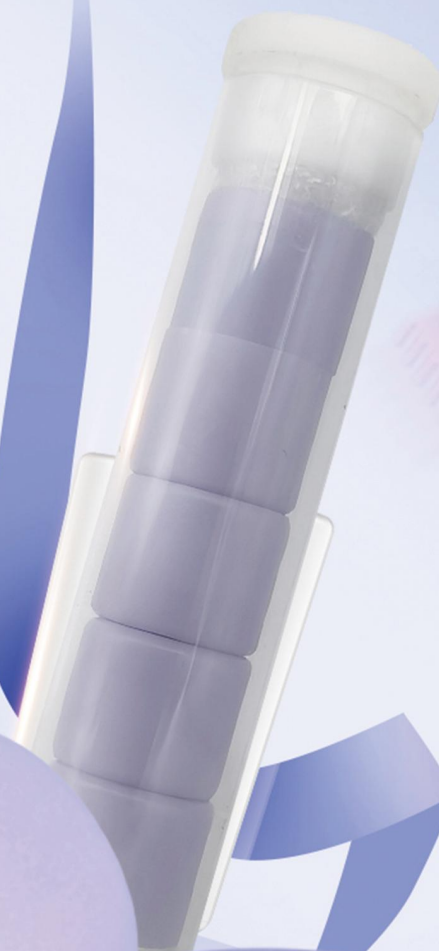
Chemical Composition |

SiO ₂	61%-71%
Li ₂ O	11%-17%
ZrO ₂	1%-5%
Other oxides	6%-30%

Biological Properties |

Cytotoxicity test	cytotoxicity level 0
Short-term systemic toxicity test (oral route)	no systemic toxicity
Sensitization test	no sensitization
Hemolysis test	hemolysis rate <5%
Ames test	negative for mutagenesis
Oral mucosa irritation test	no oral mucosa irritation
Subchronic Systemic Toxicity Test	not cause subchronic systemic toxicity





RACHCERA
HT BL2

RACHCERA
HT A2

Press Ingots

Press Ingots (Pro)																				
Colors	Shade-Bleach				Shade-A					Shade-B				Shade-C				Shade-D		
	BL1	BL2	BL3	BL4	A1	A2	A3	A3.5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Translucency																				
HT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓	✓*	✓*
MT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓	✓*	✓*
LT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓	✓*	✓*
Colors	Opacity																			
	MO-0	MO-1	MO-2	MO-3	MO-4															
Translucency																				
MO	✓	✓	✓	✓	✓															

Note: “✓” stands for available colors. “✓*” for under preparation.

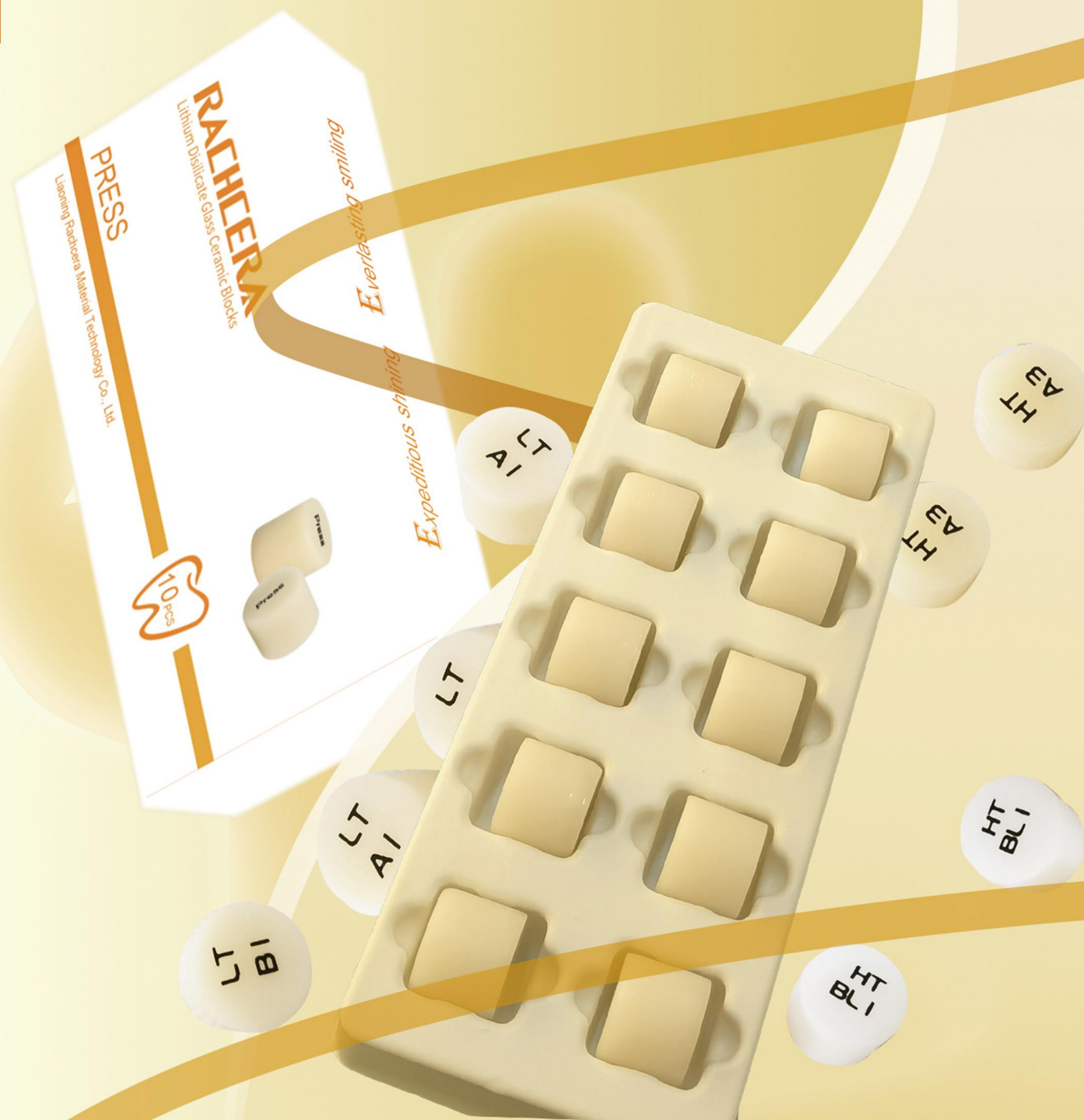
Press-casting Curve |

Translucency	Investment Ring	Starting Temperature	Heating Rate	Maximum Temperature	Holding Time	Vacuum -on	Vacuum -off
HT/LT/MT/M0	100g	700°C	60°C/min	910°C	15min	700°C	910°C
HT/LT/MTM0	200g	700°C	60°C/min	910°C	25min	700°C	910°C

Note: There may be some deviation between the displayed temperature of each press furnace and the actual temperature inside the furnace. When you use the Rachcera press ingots, please check whether the above press casting procedure is suitable for your press furnace; If the edge of the restoration is incomplete or the ring is cracked during the press casting process, please increase the maximum temperature by 3°C and repeat the last step; if there are some small traces of air bubbles on the surface of the restoration, please lower the maximum temperature by 3°C and repeat the last step ; find out the optimum press casting temperature suitable for your press furnace by the above ways; You can also contact Rachcera's after-sales technical engineers directly for troubleshooting.

Homogeneity |

Smooth to the touch, uniform in color,
free of impurities and foreign matter



RACHCERA

Press Ingots

Light Yellow Ingot(Classic)																				
Colors Translucency	Shade-Bleach				Shade-A					Shade-B				Shade-C				Shade-D		
	BL1	BL2	BL3	BL4	A1	A2	A3	A3.5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
HT	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓	✓	✓	✓*	✓	✓	✓	✓*	✓	✓	✓*
LT	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓	✓	✓	✓*	✓	✓	✓	✓*	✓	✓	✓*

Colors Translucency	Opacity				
	MO-0	MO-1	MO-2	MO-3	MO-4
MO	✓	✓	✓	✓	✓*

Note: “✓” stands for available colors. “✓*” for under preparation.

Press-casting Curve |

Translucency	Investment Ring	Starting Temperature	Heating Rate	Maximum Temperature	Holding Time	Vacuum -on	Vacuum -off
HT	100g	700°C	60°C/min	905°C	15min	700°C	905°C
LT	100g	700°C	60°C/min	910°C	15min	700°C	910°C
MO	100g	700°C	60°C/min	910°C	15min	700°C	910°C
HT	200g	700°C	60°C/min	910°C	25min	700°C	910°C
LT	200g	700°C	60°C/min	910°C	25min	700°C	910°C

Note: There may be some deviation between the displayed temperature of each press furnace and the actual temperature inside the furnace. When you use the Rachcera press ingots, please check whether the above press casting procedure is suitable for your press furnace; If the edge of the restoration is incomplete or the ring is cracked during the press casting process, please increase the maximum temperature by 5-10°C and repeat the last step; if there are some small traces of air bubbles on the surface of the restoration, please lower the maximum temperature by 5-10°C and repeat the last step; find out the optimum press casting temperature suitable for your press furnace by the above ways; You can also contact Rachcera's after-sales technical engineers directly for troubleshooting.

RACHCERA Comparisons

BEFORE

AFTER



RACHCERA

CRAFTSMAN'S HEART
ELABORATE AND ECLECTIC

BRILLIANT ENIGMA AESTHETICS DENTISTRY

