

PMMA RESIN USE GUIDANCE



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1 Introductions

PMMA By a resin block is cut with tooth color PMMA Resin composition,VI-TA16 Color and Bleach Color can be used as a temporary crown and bridge repair, and monochrome and graded to choose from. It can be used for temporary partial or full mouth restoration of long-term use.



2 Material ingredient

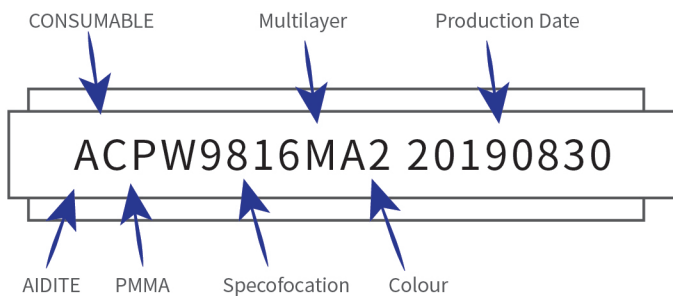
Polymethylmethacrylate(PMMA): $\geq 99\%$ Pigment: $\leq 1\%$

3 Material properties

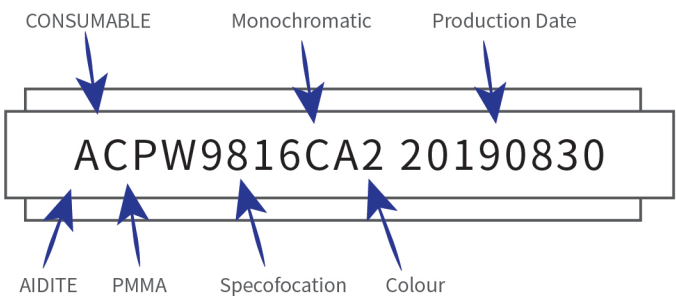
Bending strength	≥ 120 [MPa]
Density	≥ 1.17 [g / cm ³]
Vickers hardness	≥ 25 [HV1]
Water uptake	≤ 25 [μg / mm ³]
Dissolution Value	≤ 5 [μg / mm ³]
System	Wieland / Amann / Zirkon / Sirona
Thickness	12/14/16/18/20/22/25/30

4 Code information

Multi-Layered PMMA



Monochromatic PMMA

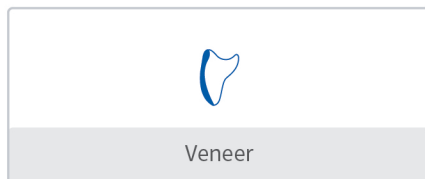
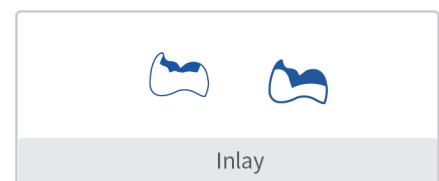
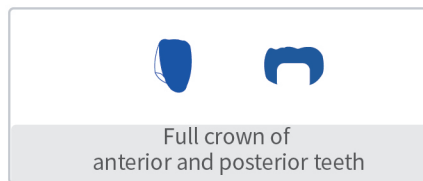


5 Color

Color Type	Color Model	Color Type	Color Model
Bleach color	OM1, OM2, OM3	Bleach color	BL
VITA16 color	A1; A2; A3; A3.5; A4; B1; B2; B3; B4; C1; C2; C3; C4; D2; D3; D4	VITA16 color	A1; A2; A3; A3.5; A4; B1; B2; B3; B4; C1; C2; C3; C4; D2; D3; D4

6 Indications

Suitable for temporary restorations



7 Storage method

Store in a dry area between 10 °C and 30 °C to prevent direct sunlight and excessive humidity.

8 hazard warning

PMMA block in cutting will produce dust, which causes irritation to the eyes and respiratory tract. Therefore, it is necessary to ensure the normal operation of the exhaust system of the cutting machine and the workplace. And wear personal protective equipment. It is forbidden to use for those who are allergic to acrylate compounds and dust.

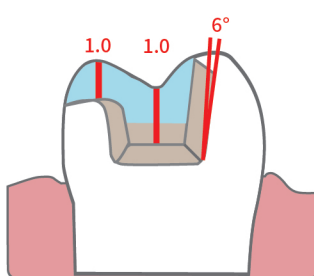
Production Process

1 Preparation standard

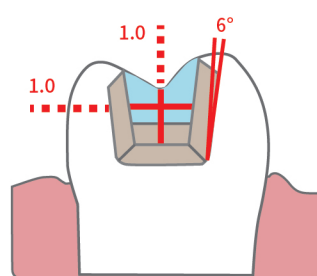
(1) The shoulder shall not be prepared in the area of corner and sharp edge. The shoulder shall be prepared in the shape of round inner edge or inclined surface.

(2) The space of 1mm is required to be reserved for the preparation of the cutting edge, so as to ensure that the Resin block can achieve the ideal grinding effect in the process of CAD / CAM. The preparation of the cutting edge should be at the enamel layer, and avoid the preparation at the point or area of stress concentration.

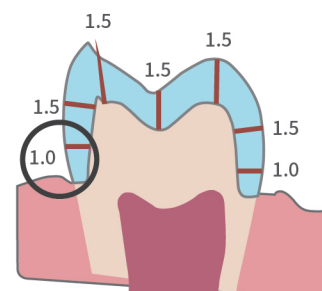
Please prepare teeth according to the diagram



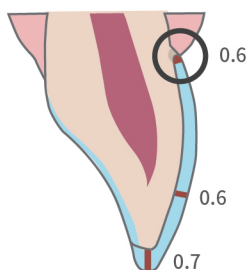
Onlay



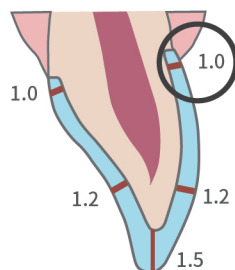
Inlay



Posterior crown



Veneer



Anterior crown

2 Scanning

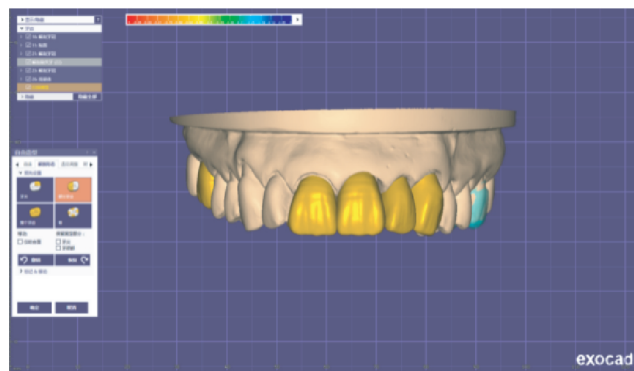
The scan was performed with an intraoral scanner with an accuracy of 20-30 microns (Cameo intraoral scanner is recommended) to obtain the corresponding intraoral data model, and transfer the scanned data to the CAD design software for restoration design.



3 CAD design

Recommended exo cad design

- 1.No interdental design on the lingual side to ensure contact area
- 2.Fill the tip of the abutment with a little wax, then scan and design.
 - (1) If the model automatically recognized by the software does not match the actual edge line, you need to double check and draw manually.
 - (2) Fill the tip of the abutment with a little wax, then scan and design.
 - (3) Increasing the cutting bur compensation value, can effectively alleviate the emplacement problem of the incisive position of the front teeth and veneer abutments being too sharp.



4 Typesetting and cutting

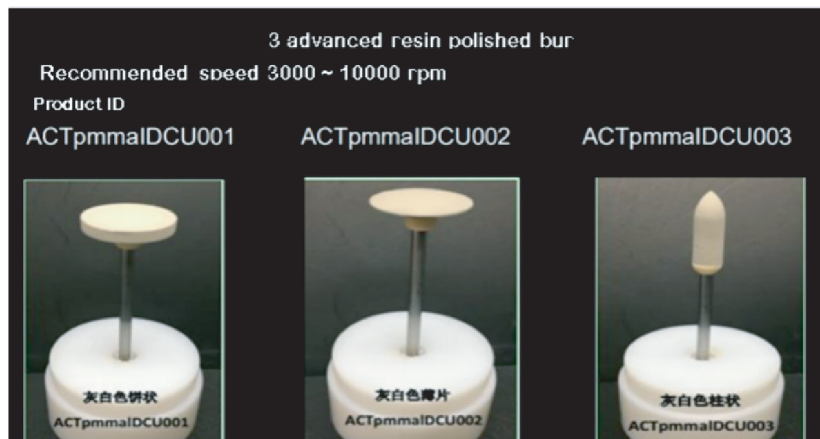
- (1) Maintain equipment regularly, calibrate, clean, and lubricate. No shaking or abnormal noise during cutting. Replace parts in a timely manner.
- (2) Before cutting, check whether the cutting bur sequence is correctly installed.
- (3) Check whether the clamp is tightened before cutting to prevent the resin block from loosening during the cutting process, resulting in inaccurate data.
- (4) Resin-cut burs can no longer cut zirconia products.

- (5) The pressure required to maintain the cutting process in 6-8bar, and the full requirements of anhydrous oil-free to avoid contamination.
- (6) A resin cutting process will produce a large amount of debris, cleaning with a vacuum cleaner to promptly.
- (7) When cutting the multi-layered resin, it is needed to pay attention to the light-colored end of the resin disc when cutting, and place it upward.



5 Cutting instruction

Use the correct tool for grinding and polishing restorations adjustment is essential.



Please observe the following polish handlers:

- (1) Use AIDITE resin grinding head to trim the surface of the restoration. Use the following steps to make the surface of the restoration smooth.

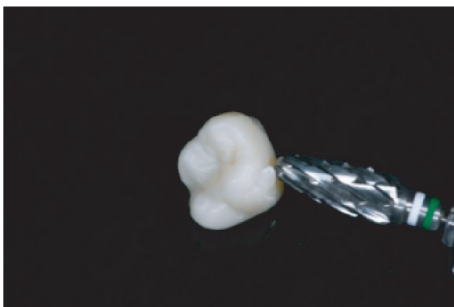
Coarse grinding: Sanding excess connecting rod after removing the connecting rod.

Polishing: Make the surface texture smooth and delicate.

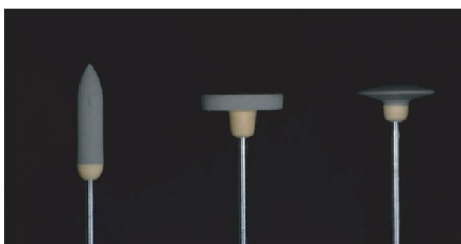
- (2) Lay a towel on the work surface before sanding to prevent the restoration from being damaged by dropping the table.
- (3) Using suitable grinding instruments, low rotation speed and light pressure can prevent layer and shape separation of the restoration.
- (4) When grinding, do not make the resin too hot.
- (5) If necessary, make personal adjustments.
- (6) Try it on carefully during rough grinding and adjust the bite.
- (7) When doing the next step, confirm that the restoration has been carefully cleaned. And excess grinding dust has been removed.

Type I : Single Crown

(1) Separation polishing



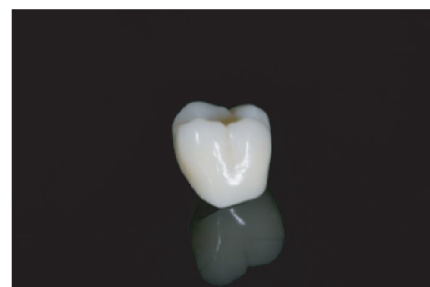
(2) Use a blade-shaped tungsten steel bur to polish the remaining connecting rod to modify the shape.



(3) Special resin Polishing bur (bur selected depending on the shape of the tooth form)



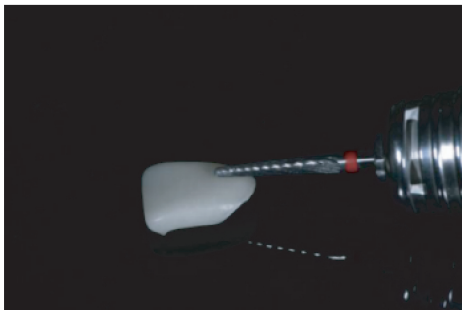
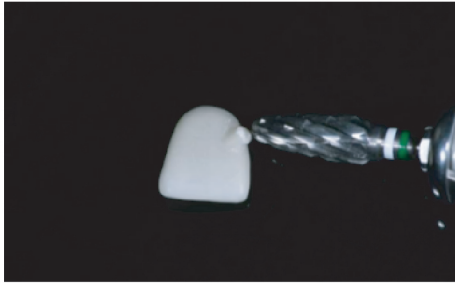
polishing



Final completion

Type II: veneer

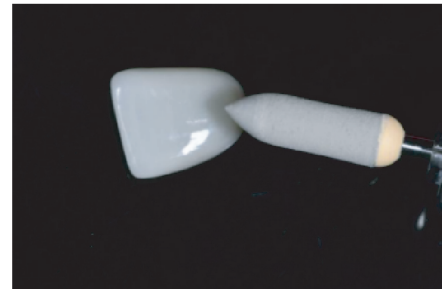
(1) Separation polishing



(2) Use a blade-shaped tungsten steel bur to polish the remaining connecting rod to modify the shape.



(3) Special resin Polishing bur (bur selected depending on the shape of the tooth form)



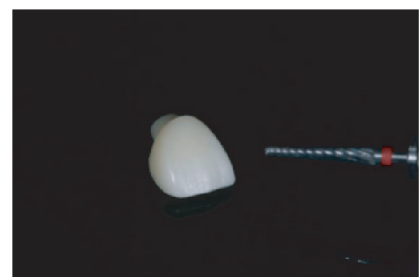
polishing



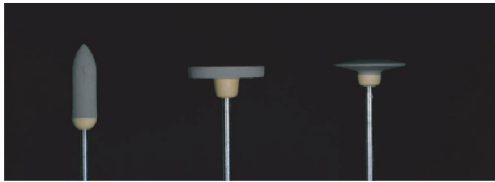
Final completion

Type III: Oneness crown

(1) Separation polishing



(2) Use a blade-shaped tungsten steel bur to polish the remaining connecting rod to modify the shape.



(3) Special resin Polishing bur (bur selected depending on the shape of the tooth form)



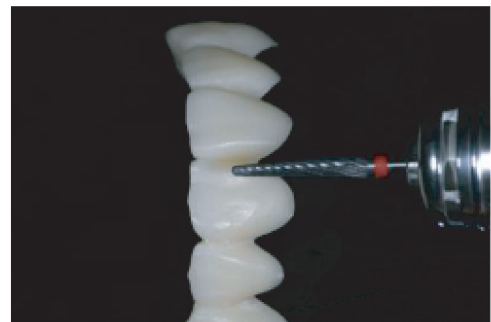
polishing



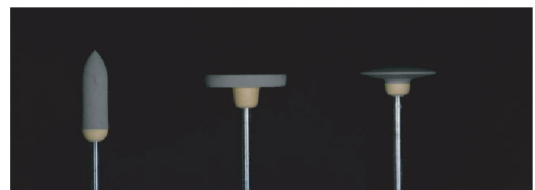
Final completion

Type IV: Anterior 3-3

(1) Separation polishing



(2) Use a blade-shaped tungsten steel bur to polish the remaining connecting rod to modify the shape.



(3) Special resin Polishing bur (bur selected depending on the shape of the tooth form)



polishing



Final completion

Bonding

The PMMA material is easy to bond, and the crown and bridge after cutting can be bonded using conventional bonding materials.

When bonding to a composite, PMMA is bonded according to the composite manufacturer's instructions.