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Ultrafast sintering | High flexural strength | Wider sintering windows

## **Aidite**

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## Product advantage »

Ai Flash is a fast-firing zirconia material that can be sintered in 30 minutes while maintaining high aesthetics and strength.

Its unique powder and production process can realize the same performance of fast-firing and slow-firing, and the translucency can reach 48% in both cases.

High flexural strength meets the full range of end indications.

#### Flexural strength 1250MPa

AiZir Flash as a high-speed sintering zirconia material with flexural strength of 1250MPa

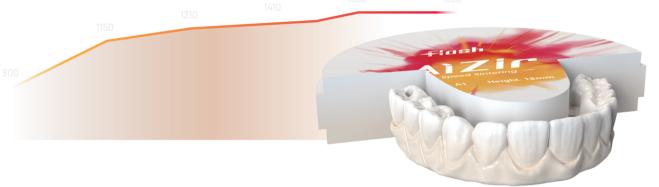
#### Multiple sintering options

Normal sintering, fast sintering and high-speed sintering can be all achieved, even with other sintering furnaces on

#### 30 min sintering for single crowns

It takes only 30 min of sintering for zirconia single crowns with no more than 3mm thickness.

The same aesthetic effect are presented at high temperature and with a wide temperature range.



## Indications »





















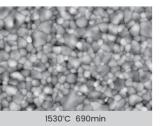


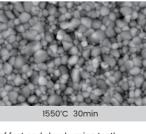
retained bridge



# Multiple sintering options »

Sintering	Conventional Sintering	Rapid Sintering
Sintering time (min)	690	30
Sintering temperature (°C)	1530	1550
Light transmittance (%)	48	48
Flexural strength (MPa)	1270	1256





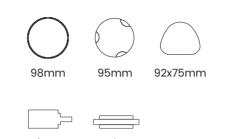
The comparison chart of the effect of fast and slow burning teeth

## Shade and dimension »



## Parameters and application systems »

Color	Vita 16/OM1/OM2/OM3
Light transmittance (%)	48
Final firing density (g/cm³)	6.07
Flexural strength (MPa)	1250
Fracture toughness (MPam <sup>0.5</sup> )	6.5
Vickers hardness (HV10)	1310



## Digital work flow >>>

Ai Flash materials represent Aidite's years of experience in digital processing, and we have validated the workflow of materials and equipment throughout the entire process, from the initial intraoral scan to the final restoration. The result is less labor involved, more efficient processing, better shipments, and Aidite's prompt, quality, and efficient service system.



## Case »»



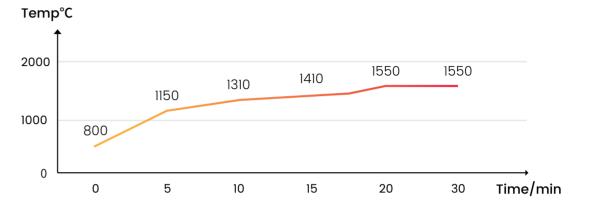




## Sintering curve »

### Single crown (Thickness≤3mm) (30min)

Start temp	Phase I heating rate	Phase 1 maximum temp	Phase 2 heating rate	Phase 2 maximum temp	Phase 3 heating rate	Phase 3 maximum temp	Phase 4 heating rate	Phase 4 maximum temp	пошину	Cooling
800°C	200°C/min	1150°C	30°C/min	1310°C	20°C/min	1410°C	30°C/min	1550°C	10min	



#### Below 3 units bridge (Thickness≤8mm) (90min)

Start temp	Phase 1 heating rate	Phase I Maximum temp	Phase 2 heating rate	Phase 2 Maximum temp	Phase 3 heating rate	Phase 3 Maximum temp	Holding time	Cooling to
800°C	200°C/min	1050°C	6°C/min	1300°C	10°C/min	1530°C	25min	

#### Below 6 units bridge (3.4h)

Start temp	Phase 1 heating rate	Phase 1 Maximum temp	Phase 2 heating rate	Phase 2 Maximum temp	Holding time	Cooling time	Cooling to
20°C	51.5°C/min	1050°C	5°C/min	1550°C	60min	37.5°C/min	800°C

#### Above 7 units bridge (11.5h)

Start temp	Phase 1 heating rate	Phase 1 Maximum temp	Holding time	Phase 2 heating rate	Phase 2 Maximum temp	Holding time	Cooling time	Cooling to
20°C	5°C/min	900°C	30min	3°C/min	1530°C	120min	8°C/min	300°C