ONDA Zr

MICROWAVE SINTERING SYSTEM

Zirconia sintering

Microwave technology.
Engineered and manufactured in Italy.

1.5 kW	up to 1,560 °C	28 kg	20-step programs

Onda Zr is a hybrid furnace for sintering dental zirconia, developed to bring MIT Group's microwave application expertise to dental laboratories. The technology transfers energy into the material to achieve a fast, controlled and repeatable process while maintaining colour stability and the quality of the sintered restoration.



TECHNICAL DATA

Dimensions	43 x 50 x 50 (H) cm
Weight	28 kg
Power	1.5 kW
Max. temperature	1,560 °C
Control	Touchscreen, multi-step programs
Connectivity	Remote

Why Onda Zr

Key benefits for dental laboratories and milling centres

- SHORT CYCLE
- ENERGY SAVINGS
- RESTORATION QUALITY
- REDUCED CRACK RISK
- INTUITIVE DISPLAY
- PRODUCTION CAPACITY
- REMOTE CONNECTION
- EASY OPERATION

Developed for the digital dental laboratory

Cycle control, multi-step programs and connectivity in a compact platform designed to integrate into the CAD/CAM workflows of dental laboratories and milling centres.

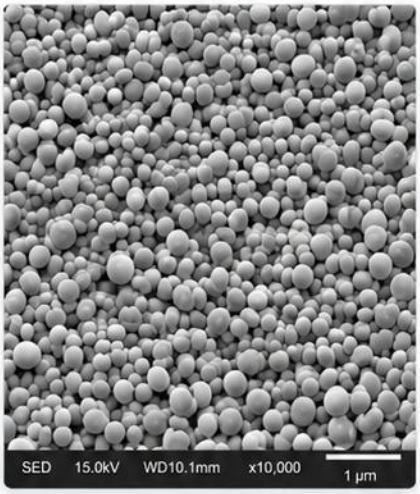
EPROTECH
environmental protection technology

Designed and manufactured by MIT Group

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Physical testing and technology comparison

Physical parameter testing carried out at CNR-ISMC in Faenza.



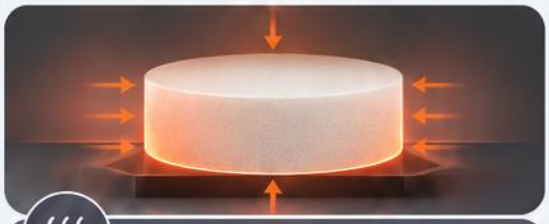
SEM micrograph - microwave-sintered sample showing uniform grain size.

The mechanical tests and physical properties reported in the technical documentation show comparable values, or higher values for some parameters, than those obtained with a conventional furnace, supporting the use of microwave sintering in dental applications.

PARAMETER	CONVENTIONAL	MICROWAVE
Density (g/cm³)	6.05	6.08
4-point flexural strength (MPa)	710	740
Young's modulus (GPa)	211	205

CONVENTIONAL vs. MICROWAVE FURNACE

CONVENTIONAL FURNACE



ELECTRICAL RESISTANCE

In a conventional furnace, heat reaches the surface and is transferred inwards by conduction. The temperature distribution therefore depends on heat transfer from the outside towards the core of the material.

MICROWAVE FURNACE



MICROWAVE ENERGY

Electromagnetic energy penetrates the material and is converted into heat. The system is designed to deliver controlled, repeatable heating, with cycle management through multi-step programs.

ONDA Zr
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Contact us for sales information, configurations and demonstrations.

EPROTECH
environmental protection technology
www.eprotech.it