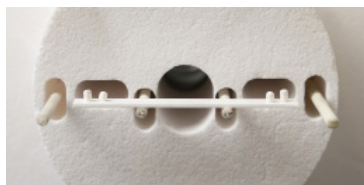


CODE GT2996
 MODEL GT-HM
 EXTERNAL DIMENSIONS...1100x280x420 mm
 POWER.....1500 Watt
 VOLTAGE.....220 V - 50 Hz single phase
 WEIGHT.....60 Kg



HEATING MICROSCOPE GT-HM

DESCRIPTION

The heating microscope is designed to study the phenomena of softening, melting, swelling, or combustion that occur at high temperatures in materials such as glasses, ceramic glazes, metals, foundry sands, and fuel ashes. For softening and melting tests with the heating microscope, a cylindrical specimen measuring 2 millimeters in diameter and 3 millimeters in height is used, prepared with a small manual press provided. It is also possible to frame and track the behavior of irregularly shaped specimens. The specimen is placed on a disposable sintered alumina support. A digital camera with microscopic optics and long focal length frames the sample placed on the support and transfers the image to the software, which analyzes it and retrieves the data.

APPLICATIONS

- Fusibility of ceramic raw materials, glazes, frits, engobes, ashes, glasses.
- Characteristic shapes such as sintering, softening, sphere, half-sphere, and melting.
- Variation of geometrical parameters (e.g., height, volume, perimeter, width, area, top and bottom contact angle, ratio between base and height).
- Fusibility according to international standards (cylindrical samples):
 DIN 51730, ISO 540, CEN/TS 15370 & CEN/TR 15404, Chinese QB/T 1546-2016
- Swelling/bloating effects.
- Theoretical viscosity.
- Surface tension at high temperature.

TECHNICAL SPECIFICATIONS

- Sample Shape: Cylinder
- Sample Height: 3 mm
- Sample Diameter: 2-3 mm
- Shape Type: Regular or irregular shape up to 8x8 mm
- Measurement Range: Measurement of dimensional changes up to 100%
- Simultaneous Tests: 2 samples simultaneously (4 as option)
- Dimensional Change Resolution: 3.5 μ m
- Sensor Resolution: Total 60 Megapixel
- Light Source: 480 nm blue LED ; 3 W
- Filter: Interferential filter
- Frame Acquisition Rate: From 1 to 15 frames per second, user-selectable.
- Temperature Range on Sample: From room temperature (RT) up to 1400/1600 °C depending on the heating element type.
- Temperature Range in Furnace: From room temperature (RT) up to 1450/1650 °C depending on the heating element type.
- Heating Rate: From 1 to 80 °C/min
- Temperature Resolution: 0.1 °C
- Atmosphere Control: Air, protective atmosphere on demand

THERMAL CYCLE

- Unlimited number of heating/cooling/isothermal segments
- Simulation of industrial thermal cycles
- Maximum heating rate: 80 °C/min

EMBEDDED COMPUTER

- Intel Core i7 Processor
- RAM 16 GB
- Linux Operating System
- Automatic data backup

EQUIPMENT

- Platform, Control and Measurement Software Suite, Horizontal Filament.
- Horizontal Furnace, Platinum Heating Element 1400 °C, Pt/Rh heating element 1600°C,
- Heating Microscope Module, Dedicated Heating Microscope Software.
- Possible predispositions to be requested at the time of the offer: Dilatometer, Fleximeter