

## HD-THERMASTER

### Temperature control during sun protection testing

The HD-THERMASTER has been specifically designed to control and ensure the temperature at the substrate surface all during the process of In Vitro sunscreen testing



#### DESCRIPTION

First, totally adapted for PMMA Molded Helioplates HD6 and PMMA Sandblasted Helioplates SB6, these substrates have to be placed on the HD-THERMASTER (over the metallic support) at least 10 min before starting the test to ensure the surface temperature.

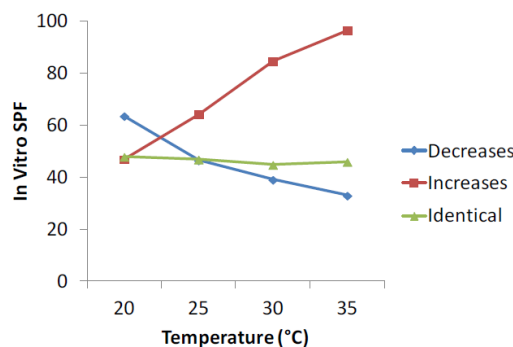
Second, the metallic support + the substrate is used to maintain the temperature by inertia during the weighing and spreading steps (< 2 min).

Finally, the substrate is replaced on the HD-THERMASTER in the dark to ensure the surface temperature control during the drying step.



#### RESULTS

The temperature influence from 20°C to 35 °C has been studied on 37 sunscreen products (including: O/W emulsions, W/O emulsions, oils, sticks and sprays) coming from different worldwide companies.



Results demonstrated that more than 80% of sunscreen products are thermo-sensitive during in vitro sunscreen testing with a product dependent behavior.

#### TECHNICAL SPECIFICATIONS

##### General

Weight: 2.3 kg  
 Power supply: 100-240 VAC, 50-60 Hz  
 Overall size (WxHxL): 300 mm x 120 mm x 210 mm  
 Material: PS UL, Aluminium  
 Power consumption: Approx. 30 Watts  
 IP Classification: IP42  
 Temperature: Operational 0-45°C (safety limit 50°C)

##### Sun protection field

Temperature control: 0.3°C precision at substrate surface  
 Temperature range: Ambient - 45°C  
 Metallic support: Heat loss reduction during transport by metallic inertia  
 Substrates compliant: PMMA Molded Helioplates HD6  
 PMMA Sandblasted Helioplates SB6  
 Spreading control: HD-SPREADMASTER (option)

#### INFORMATION AND GENERAL TIMETABLE

Reception of our OF (Order Form) or your Purchase Order (PO)

Forefront payment of 50% for order confirmation

Order sent



[1] S. Miksa, D. Lutz and C. Guy, UV Transmission Assessment: Influence of Temperature on Substrate Surface, Cosmetics & Toiletries, July 2013