HelioScreen

In Vitro sunscreen testing solutions

HD THERMASTER

Temperature control during sun protection testing

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

DESCRIPTION

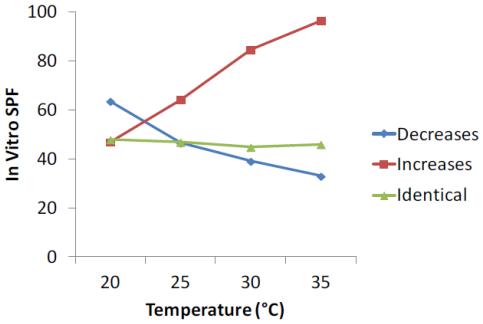
First, totally adapted for PMMA Molded Helioplates HD6 and PMMA Sandblasted Helioplates SB6, these substrates have to be placed on the HD-THERMASTER (over the metallic support) at least 10 min before starting the test to ensure the surface temperature.

Second, the metallic support (substrate on the top) 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

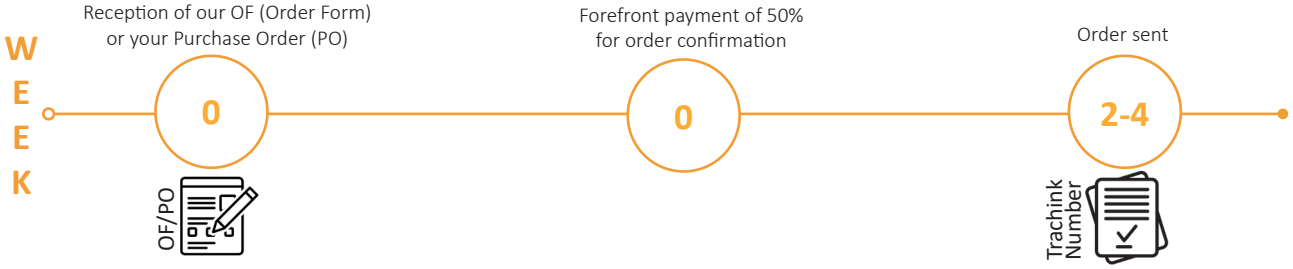
General

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 range: Ambient - 45.0°C
Metallic support: Heat loss reduction during transport by thermal inertia
Substrates: PMMA Molded Helioplates HD6
PMMA Sandblasted Helioplates SB6
Spreading control: HD-SPREADMASTER (option)

INFORMATION AND GENERAL TIMETABLE



Miksa, S., Lutz, D. and Guy, C. UV transmission assessment: influence of temperature on substrate surface. Cosmet. Toil. 128, 484– 494 (2013)

FDA REGISTERED BIPEA CIR Crédit Impôt Recherche

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Update: 13/12/2022