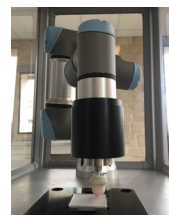


HelioScreen

In Vitro sunscreen testing solutions

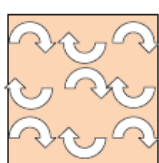
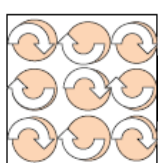
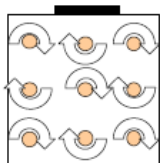
HD SPREADMASTER Automated sunscreen spreading

The HD-SPREADMASTER is a robot which carries out the automatic spreading of the sunscreen on the substrate. It allows a total control of the product spreading and ensures the reproducibility of the In Vitro UV testing with a very low variability range.



DESCRIPTION

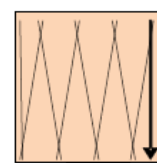
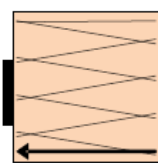
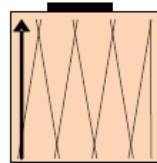
First, 3 stages of distribution using small circular motions completed in about 30 s.



+90°

+90°

Second, 3 stages of rubs using alternating horizontal and vertical strokes completed in about 30 s.



+90°

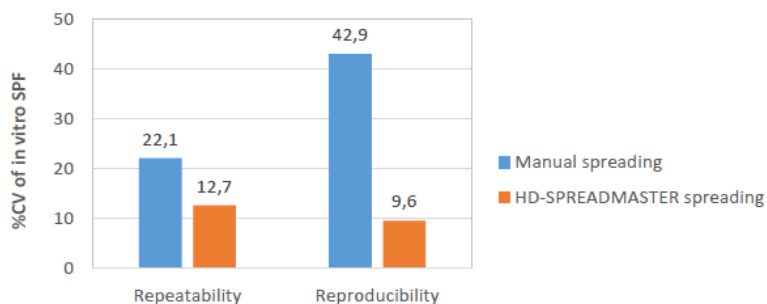
+90°

RESULTS

The manual spreading with 8 different operators has been compared to the robotic spreading on 36 sunscreen products (including: O/W emulsions, W/O emulsions, oils, creams, lotions and sprays) coming from different worldwide companies [1].

*repeatability: within operator

*reproducibility: between operators



TECHNICAL SPECIFICATIONS

General

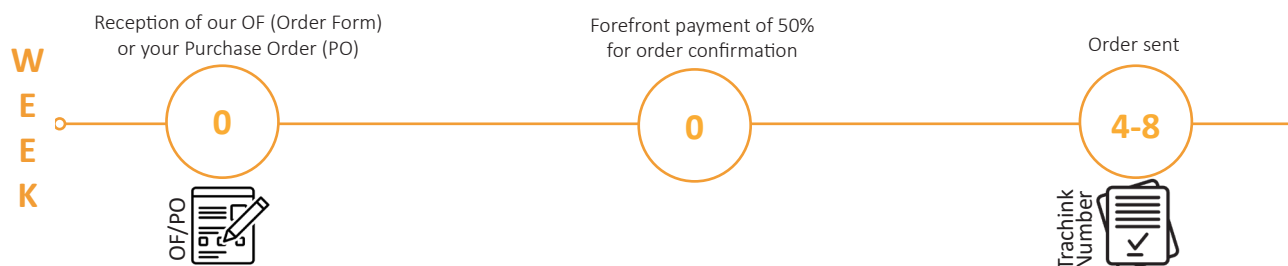
Weight: 140 kg
Power supply: 100-240 VAC, 50-60 Hz
Overall size (WxHxL): 800 mm x 1800 mm x 800 mm
Working height: 800 mm
Material: Aluminium, ABS Plastic
Power consumption: Approx. 100 Watts
IP Classification: IP54
Temperature: Operational 0-50°C (safety limit 50°C)



Sun protection field

Spreading time: 1 min
Spreading pressure: 6.0 ± 0.5 N
(to be controlled every 12-24 months)
Spreading tool: Silicone material hardness 20-25 shores
(to be replaced every 400 spreading)
Substrates: PMMA Molded Helioplates HD6
PMMA Sandblasted Helioplates SB6
Temperature control: HD-THERMASTER (option)

INFORMATION AND GENERAL TIMETABLE



[1] S. Miksa, D. Lutz and C. Guy, In vitro UV testing-robot vs. human spreading for repeatable, reproducible results. Cosmt. Toil. 128, 742-752 (2013)



BIPEA



www.helioscreen.fr - 44 rue Léon Blum, 60100 Creil, France
Phone: +33(0)3 60 46 80 15 - email: commercial@helioscreen.fr