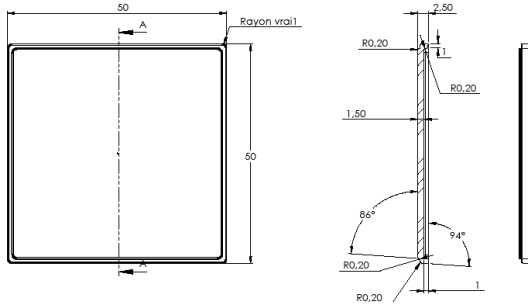




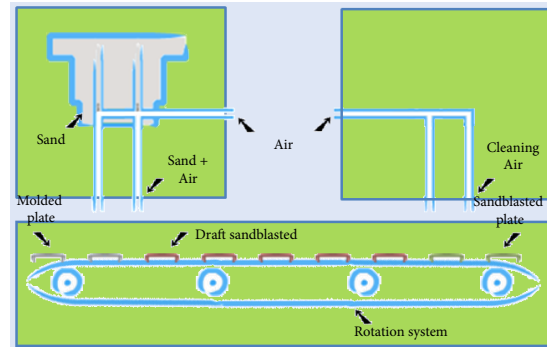
Helioplate SB6 Sandblasted PMMA plate

Manufactured by means of a sandblasting process plate by plate, this substrate is delivered with a quality control ensuring the reproducibility of roughness. These plates are certified with the same topography due to the process and in compliance with FDA monograph 2011 and Boots Star Rating system rev. 2011.

PROCESS DESCRIPTION



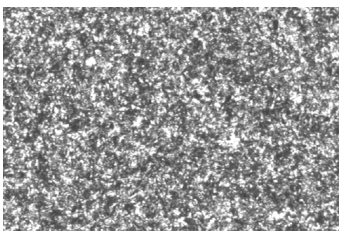
Overall size (WxLxH): 50 mm x 50 mm x 1.5 mm
Weight: 4.5 g
Manufacturing process: Plate by plate
Package contenance: 50 plates



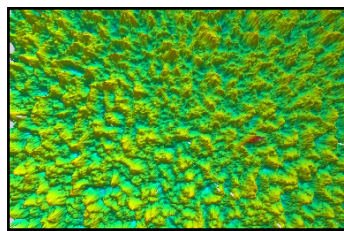
Spreading area: 48 mm x 48 mm
Temperature: Optimal temperature range 20-40°C
Material: PMMA (poly(methyl methacrylate))
Use: To use only one time (cannot be cleaned)

VIEW

2D



3D



One plate



One package



TOPOGRAPHIC PARAMETERS

Surface profile characteristics of the substrate is measured covering at least a surface area of 10 mm x 5 mm in 15-µm intervals. Non-contact surface topographic analysis is conducted using a lab work station consisting of an optical sensor, a motion controller, an x-y translation stage, and microtopography software. A sensor based on a white light chromatic aberration principle is used which allows for a high resolution: 10 nm vertically and 1 µm horizontally.

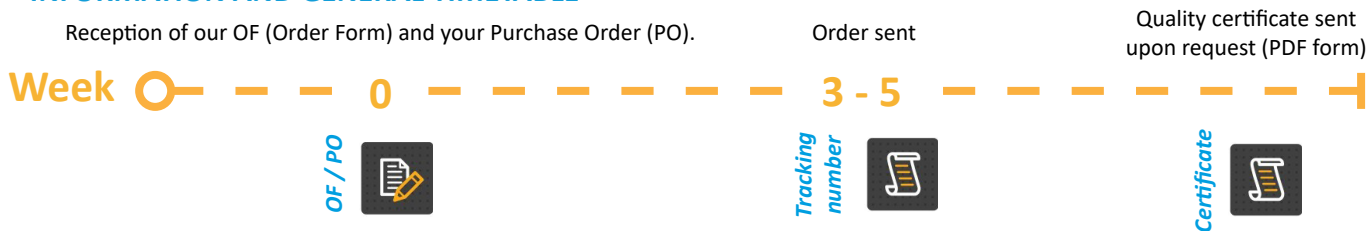
Parameter	Ra	Rv	Rdq	A1	Ssc	Vvv
Target value	4.188	11.402	11.004	238.252	0.032	8.701E-4
Upper limit	4.443	12.640	11.964	274.243	0.038	9.756E-4
Lower limit	3.934	10.160	10.044	202.261	0.026	7.646E-4

Ra: Average arithmetic of the distances in the average
Rv: Maximal depth of the hollows of the profile, inside a basic length
Rdq: Square root of the averages of the gradient
A1: Area of the equivalent triangle for peaks
Ssc: Curvature averages arithmetic in summits
Vvv: Volume of space of valleys, calculated in the portion situated below c2 This study rests on the curve of Abbott calculated on the surface)

PLATE OPTICAL CHARACTERISTICS

Limits for the treated plate transmission values are: 290 nm >60 %T - 300 nm >65 %T - 320 nm >75 %T

INFORMATION AND GENERAL TIMETABLE



[1] S. Miksa, D. Lutz and C. Guy. Sandblasting to Improve the Reproducibility of In vitro Sunscreen Evaluation, Cosmetics & Toiletries, April 2014