



Fraunhofer

TESTED[®] DEVICE

eltherm GmbH
ELPH-Cleanroom ID 100 mm
Report No. EL 2211-1363

Single product Outgassing Behavior VOC/SVOC

Qualification Certificate

This is to certify that the product mentioned above, provided by

eltherm production GmbH
Burbach, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE
bearing the report number EL 2211-1363.

The outgassing behavior of ELPH-Cleanroom ID 100mm at room and operating temperature was investigated according to VDI 2083 Part 17 and ISO 14644-15. Based on the outgassing rates determined for the specific surfaces, the following material classification was made for the corresponding Contaminant Category:

Contaminant Category (x)	SER _a ¹⁾ 23 °C [g/m ² s]	ISO-ACC _m Class (x) based on 23 °C	SER _a ¹⁾ 180 °C [g/m ² s]	ISO-ACC _m Class (x) based on 180 °C
VOC	6.9×10^{-10}	-9.2	1.0×10^{-7}	-7.0
SVOC	$< 1.3 \times 10^{-11}$	< -10.9	7.0×10^{-8}	-6.2
Amines	$< 1.3 \times 10^{-11}$	--	$< 7.6 \times 10^{-11}$	--
Organo-phosphates	$< 1.3 \times 10^{-11}$	--	$< 7.6 \times 10^{-11}$	--
Siloxanes	5.0×10^{-10}	--	8.5×10^{-9}	--
Phthalates	$< 1.3 \times 10^{-11}$	--	$< 7.6 \times 10^{-11}$	--

¹⁾ SER_a: Area-specific emission rate

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Stuttgart, March 30, 2023
Place, current date

on behalf of 

This document only applies to the named product in its original state and is valid for a period of 5 years from the current date the document was issued. The document can be verified under www.tested-device.com.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.