



Fraunhofer

TESTED[®] DEVICE

eltherm GmbH
ELPH-Cleanroom ID 40 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 40 mm 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	3.2×10^{-10}	-9.5	1.4×10^{-8}	-7.9
SVOC	$< 2.8 \times 10^{-11}$	< -10.6	2.6×10^{-7}	-6.6
Amines	$< 2.8 \times 10^{-11}$	--	$< 1.7 \times 10^{-10}$	--
Organo-phosphates	$< 2.8 \times 10^{-11}$	--	$< 1.7 \times 10^{-10}$	--
Siloxanes	3.2×10^{-10}	--	3.5×10^{-9}	--
Phthalates	$< 2.8 \times 10^{-11}$	--	$< 1.7 \times 10^{-10}$	--

¹⁾ SER_a: Area-specific emission rate

EL 1603-812
Report No. first document

Stuttgart, May 31, 2016
Place, date of first document issued

EL 2211-1363
Report No. current document

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.