



Fraunhofer

TESTED[®] DEVICE

igus GmbH
e-skin flat single pod system
Report No. IG 2110-1268

Single product Outgassing Behavior Inorganic Acids

Qualification Certificate

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

igus GmbH
Cologne, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE
bearing the report number IG 2110-1268.

The outgassing behavior of the e-skin flat single pod system with CFCLEAN and support chain (color: white) at the stated temperatures was investigated according to VDI 2083 Part 17 and ISO 14644-15. Based on the outgassing rates determined for the specific units, the following equipment classification was made for the corresponding Contaminant Category:

Contaminant Category (x)	SER _u ¹⁾ 23 °C [g/unit*s]	ISO-ACC _e Class (x) based on 23 °C
HF	< 2.9 x 10 ⁻¹²	< -11.5
HCl	< 2.9 x 10 ⁻¹²	< -11.5
HBr	< 2.9 x 10 ⁻¹²	< -11.5
HNO ₃	< 2.9 x 10 ⁻¹²	< -11.5
H ₃ PO ₄	< 2.9 x 10 ⁻¹²	< -11.5
H ₂ SO ₄	< 2.9 x 10 ⁻¹²	< -11.5

¹⁾SER_u: Unit-specific emission rate

This document only applies to the named product in its original state and is valid for a period of 5 years from the date the first 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.

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Report No. first document

Stuttgart, January 21, 2022
Place, date of first document issued

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Report No. current document

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Place, current date

on behalf of 
Dr.-Ing. Frank Bürger, Project Manager Fraunhofer IPA