



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

igus GmbH  
Igumid TE

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 tile made from igumid TE material (color: black) 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 surfaces, the following material classification was made for the corresponding Contaminant Category:

Contaminant Category (x)	SER <sub>a</sub> <sup>1)</sup> 23 °C [g/m <sup>2</sup> s]	SER <sub>a</sub> <sup>1)</sup> 90 °C [g/m <sup>2</sup> s]	ISO-ACC <sub>m</sub> Class (x) based on 23 °C
HF	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5
HCl	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5
HBr	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5
HNO <sub>3</sub>	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5
H <sub>3</sub> PO <sub>4</sub>	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5
H <sub>2</sub> SO <sub>4</sub>	< 2.9 x 10 <sup>-9</sup>	< 2.9 x 10 <sup>-9</sup>	< -8.5

<sup>1)</sup>SER<sub>a</sub>: Area-specific emission rate

IG 2110-1268  
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

DUPLICATE

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](http://www.tested-device.com).

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