



**FS-BF GmbH & Co. KG**  
**Report No. FS 1711-963**

# Cleanroom<sup>®</sup> Suitable Materials

**Cleanroom Silicon PX 3433.1**  
**Outgassing VOC/SVOC**  
**ISO-ACC<sub>m</sub> Class -5.4/-7.5**

## FLOORING & COATING

### Outgassing Behavior VOC/SVOC

### Qualification Certificate

We hereby certify that the material stated above, provided by

**FS-BF GmbH & Co. KG**  
 Reichshof-Hahn, Germany

has been awarded the Fraunhofer IPA CSM Certificate of Qualification with the report number FS 1711-963.

The outgassing behavior of Cleanroom Silicon PX 3433.1 (ivoire) at the stated temperatures was investigated according to VDI 2083 Part 17. 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
VOC	4.3 x 10 <sup>-6</sup>	1.3 x 10 <sup>-5</sup>	<b>-5.4</b>
SVOC	3.1 x 10 <sup>-8</sup>	3.4 x 10 <sup>-7</sup>	<b>-7.5</b>
Amines	< 2.8 x 10 <sup>-10</sup>	7.4 x 10 <sup>-9</sup>	--
Organophosphates	< 2.8 x 10 <sup>-10</sup>	< 4.6 x 10 <sup>-9</sup>	--
Siloxanes	1.3 x 10 <sup>-6</sup>	5.6 x 10 <sup>-6</sup>	--
Phthalates	< 2.8 x 10 <sup>-10</sup>	< 4.6 x 10 <sup>-9</sup>	--

<sup>1)</sup>SER<sub>a</sub>: Area-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](http://www.tested-device.com).

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

DUPLICATE

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on behalf of   
 Dr.-Ing. Udo Gommel, Project manager Fraunhofer IPA