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DEVICE

ebm-papst Mulfingen
Impeller Radical PPGF40
Report No. EB 1703-895

DUPLICATE

Statement of
Qualification

Outgassing Behavior
VOC/SVOC

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Statement of Qualification

Customer

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2
74673 Mulfingen
Germany

Component tested

Category: Materials

Subcategory: Plastics

Product name: Impeller Radical PPGF40 Size 400 * -1-3233
(manufacturing date: 4/2016; color: black; serial number: 40310-1-3233)

Emission chamber measurements with purge-and-trap thermodesorption method and gas chromatography combined with mass spectrometry (TD-GC/MS)

Standards/Guidelines: ISO 14644-8; ISO 16000-6, -9, -11, -25; VDI 2083 Part 17
The norms stated generally refer to the version valid at the time of the tests.

Testing equipment:
- Measuring station: ..... PerkinElmer Clarus 600, Clarus 600T, ATD 650
- Sampling chamber: ..... Markes International µCTE

Sample storage: Age of sample: ..... 8 months

Test procedure parameters: Outgassing test temperatures: ..... 23 °C and 90 °C

Test result / Classification

The outgassing behavior of the material sample from the Impeller Radical PPGF40 Size 400 * -1-3233 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 substance group:

Substance Group (x)	**SER_a[1] 23 °C** [g/m²s]	**SER_a[1] 90 °C** [g/m²s]	**ISO-ACC_m class** (x) based on 23 °C
VOC	6.6×10^{-8}	3.5×10^{-7}	-7.2
SVOC	2.3×10^{-9}	6.1×10^{-9}	-8.6

[1] SER: Surface Specific Emission Rate

The detection limit at the time of the test was ISO-ACC_m class = -9.6 (VOC/SVOC). The ISO-ACC_m class (x) was assigned for the named substance groups at the test temperature of 23 °C (room temperature).

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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Stuttgart, April 24, 2017
Place, date of first document issued

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Place, current date

on behalf of
Frank Bürger, Project Manager Fraunhofer IPA

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