IPA

valid until: April 17, 2029

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TESTED®
DEVICE

SOLIANI EMC
RA.65.600.600.HP-H
Report No. SO 2403-1505

Statement of
Qualification

Single product
Particle Emission

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Statement of Qualification · Single product

Customer

SOLIANI EMC S.r.l.
Via varesina 122
22100 Como
Italy

Component tested

Category: Cleanroom Facilities

Subcategory: Wall/Ceiling/Floor/Door

Product name: Absorber RA.65.600.600.HP-H
(manufacturing date: 1/2024; color: black and blue with honeycomb tip;
article number: 95.00051-00)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: ISO 14644-1, -14
The norms stated generally refer to the version valid at the time of the tests.

Test devices: Optical particle counter:
LasAir II 110 and LasAir III 110 with measuring ranges ≥ 0.1 µm, ≥ 0.2 µm, ≥ 0.3 µm, ≥ 0.5 µm, ≥ 1.0 µm and ≥ 5.0 µm

Test environment parameters:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1): ISO 1
- Airflow velocity: 0.45 m/s
- Airflow pattern: vertical laminar flow
- Temperature: 22 °C ± 0.5 °C
- Relative humidity: 45 % ± 5 %

Test procedure parameters:

- Installation position: horizontal
- Ground plate material: stainless steel AISI304
- Ground plate thickness: 2 mm
- Structure-borne noise: approx. 50 Hz
- Oscillation velocity (Ø): v = 0.5788 mm/s
- Oscillation acceleration (Ø): a = 0.1688 m/s²
- Deflection of the system (Ø): s = 0.0335 mm

Test result / Classification

When operated under the specified test conditions, the Absorber RA.65.600.600.HP-H is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Structure-borne noise = approx. 50 Hz	1
Overall result	

It should be noted that cleanrooms of class 1 to 5 according to ISO 14644-1 have a higher filter occupancy, which may restrict the use of absorbers. Cleanrooms with a horizontal displacement flow form an exception to this.

Surfaces and edges may not become damaged during assembly because this would also have a negative influence on the particle emission behavior of the absorber elements when in later use.

Due to the porous surface and type of material utilized, which is only partially resistant to common cleaning agents, the absorber elements can only be cleaned to a limited extent in a cleanroom-suitable manner.

Please note: Transport damages, incorrect installation, aging behavior etc. can influence the test result.

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.

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

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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

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**.