valid until: April 5, 2028

Fraunhofer

TESTED®
DEVICE

ASSA ABLOY Entrance Systems
SL500 clean room door
Report No. AS 2301-1380

Statement of
Qualification

Single product
Particle Emission

Fraunhofer
IPA

Statement of Qualification · Single product

Customer

ASSA ABLOY Entrance Systems GmbH
Lagerstrasse 45
64807 Dieburg
Germany

Component tested

Category: Cleanroom Facilities

Subcategory: Wall/Ceiling/Floor/Door

Product name: SL500 clean room sliding door
(manufacturing date: 1/2023; color: RAL 9010; article number: 1009380-1PS-15; serial number: 510955)

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:

- Cycles per minute: ..... n = 1.5 (every 40 s)
- Maximum opening velocity: ..... v_{os} = 300 mm/s
- Maximum closing velocity: ..... v_{cs} = 300 mm/s
- Velocity of slow running distance (200 mm before reaching the end position): ..... v = 170 mm/s
- Opening time/Closing time:: ..... t = 7.2 s
- Time in open / close state:: ..... t_p = 2 s

Test result / Classification

When operated under the specified test conditions, the SL500 clean room sliding door is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Opposite side of driving mechanism: Max. opening velocity: v = 300 mm/s Max. closing velocity: v = 300 mm/s Cycle: every 40 s	4
Side of driving mechanism: Max. opening velocity: v = 300 mm/s Max. closing velocity: v = 300 mm/s Cycle: every 40 s	4
Overall result	**4**

Please note: Transport damages, incorrect installation, aging behavior, corrosion 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 current date the document was issued. The document can be verified under **www.tested-device.com**.