



**Fraunhofer**  
**TESTED<sup>®</sup>**  
**DEVICE**  
ASSA ABLOY Entrance Systems  
HS9130GAT  
**Report No. AS 2511-1686**

DUPPLICATE

Statement of  
Qualification

Single product  
Particle Emission  
in Cleanroom  
(atmospheric)

# Statement of Qualification • Single product

## Customer

ASSA ABLOY Entrance Systems  
Am Mondschein 25  
59557 Lippstadt  
Germany

## Test result / Classification

The ASSA ABLOY High Speed Door HS9130GAT is suitable for use under the specified test parameters (room temperature:  $22^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ ; relative humidity:  $45\% \pm 5\%$ ) in cleanrooms of the following Air Cleanliness Classes according to ISO 14644-1:

## Tested product

Category: Cleanroom Facilities

Subcategory: Wall/Ceiling/Floor/Door

Product name: ASSA ABLOY High Speed Door HS9130GAT  
(manufacturing date: 7/2025; color curtain: white; dimensions: 2000 mm x 2300 mm; article number: HS9130GAT; serial number: BBA2503298)

Test parameter(s)	Air Cleanliness Class
Side of driving mechanism	5
Opposite side of driving mechanism	4
<b>Overall result</b>	<b>5</b>

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

## Random sampling of particle emissions (airborne) at representative sites in cleanroom under atmospheric conditions

Standards/guidelines:

ISO 14644-1, -14

The norms stated generally refer to the version valid at the time of the tests.

Test equipment:

Optical particle counter:  
LasAir II 110 and LasAir III 110 with measuring ranges  $\geq 0.1 \mu\text{m}$ ,  $\geq 0.2 \mu\text{m}$ ,  $\geq 0.3 \mu\text{m}$ ,  $\geq 0.5 \mu\text{m}$ ,  $\geq 1.0 \mu\text{m}$  and  $\geq 5.0 \mu\text{m}$

Test environment parameters:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1): ISO 1
- Airflow velocity: .....  $0.45 \text{ m/s}$
- Airflow pattern: ..... vertical laminar flow
- Room temperature: .....  $22^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$
- Relative humidity: .....  $45\% \pm 5\%$

Test procedure parameters:

- Cycles per minute: .....  $n = 1/10$
- Opening speed: .....  $v_{os} = 2.7 \text{ m/s}$
- Closing speed: .....  $v_{cs} = 0.5 \text{ m/s}$

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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Business unit  
Testing and Certification

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70569 Stuttgart  
Germany

on behalf of   
Dr.-Ing. Frank Bürger, head of business unit Testing and Certification

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