IPA

Cleanroom (atmospheric)

valid until: October 2, 2030

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TESTED®
DEVICE

DYNACO EUROPE NV
Dynaco D-313 CR LF
Report No. DY 2508-1659

Statement of
Qualification

Single product
Particle Emission
in Cleanroom
(atmospheric)

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Statement of Qualification · Single product

Customer

DYNACO EUROPE NV
Waverstraat 21
9310 Moorsel
Belgium

Tested product

Category: Cleanroom Facilities

Subcategory: Wall/Ceiling/Floor/Door

Product name: Dynaco Europe D-313 Cleanroom LF
(manufacturing date: 7/2025; color curtain: white; dimensions: 2000 mm x 2300 mm; article number: D-313 Cleanroom LF; serial number: BBA2503298 (DY311))

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 ≥ 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
- Room temperature: ..... 22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:

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

Test result / Classification

The door Dynaco Europe D-313 Cleanroom LF is suitable for use under the specified test parameters (room temperature: 22 °C ± 0.5 °C; relative humidity: 45 % ± 5 %) in cleanrooms of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Side of driving mechanism	5
Opposite side of driving mechanism	4
Overall result	**5**

Please note: Transport damages, incorrect installation, oil leakage, 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, head of business unit Testing and Certification

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**.