



Fraunhofer

**TESTED[®]
DEVICE**

F.-W. Dauphin GmbH & Co.
IS20650 166481 0171
Report No. DA 1512-795

DUPLICATE

Statement of
Qualification

Particle Emission

Statement of Qualification

Customer

Bürositzmöbelfabrik
Friedrich-W. Dauphin GmbH & Co.
Espanstrasse 29
91238 Offenhausen
Germany

Component tested

Category: Working Place and Operator
Subcategory: Chairs
Product name: Work chair IS20650 166481 0171
(manufacturing date: 28/5/2016; upholstery: 0171/Tec profile, polyurethane, black, conductive; base: no. 16; castors: no. 81)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: VDI 2083-9.1; ISO 14644-1
The norms stated generally refer to the version valid at the time of the tests.

Test devices: Optical particle counter:
LasAir II 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 m/s
- Airflow pattern:..... vertical laminar flow
- Temperature:22 °C \pm 0.5 °C
- Relative humidity: 45 % \pm 5 %

Test procedure parameters:

- Type of stress applied:pulsating vertical force
- Location of stress impact: midpoint of the seat/backrest
- Seat:
 - Force:.....F = 1200N
 - Cycles:..... 12/min
- Backrest:
 - Force:.....F = 350N
 - Cycles:..... 12/min

Test result / Classification

When operated under the specified test conditions, the work chair IS20650 166481 0171 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
Seat (F = 1200 N; 12 Cycles/min)	2
Backrest (F = 350 N; 12 Cycles/min)	3
Overall result	3

DUPLICATE

DUPLICATE

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

Department of Ultraclean Technology and Micromanufacturing

Nobelstrasse 12
70569 Stuttgart
Germany

Stuttgart, July 22, 2016

Place, date of first document issued

--

Place, current date

on behalf of 
Frank Bürger, Project Manager Fraunhofer IPA