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DEVICE

Dräger Safety AG & Co. KGaA
Dräger X-plore 8700
Report No. DR 2207-1330

DUPLICATE

Statement of
Qualification

Single product
Particle Emission

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Statement of Qualification · Single product

Customer

Dräger Safety AG & Co. KGaA
Revalstrasse 1
23560 Luebeck
Germany

Component tested

Category: Working Place and Operator

Subcategory: Work Equipment

Product name: Dräger X-plore 8700 Powered Air Purifying Respirator with headpiece “hood” (manufacturing date, article and serial number: can be found in the Fraunhofer IPA test report; weight: 2.4 kg; battery: Dräger X-plore 8700 extended battery (EX); rated capacity/energy: 6.7 Ah/72 Wh; filter: X-plore 8000 filter P R SL; hood: X-plore 8000 premium hood, long (S/M))

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:

- Blower level: ..... third stage
- Hood: ..... X-plore 8000 premium hood, long (S/M)
- Volume flow: ..... Q = 210 lpm
- Maximum inward leakage: ..... $Q_L \leq 0.2$ %

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Test result / Classification

When operated under the specified test conditions, the Dräger X-plore 8700 Powered Air Purifying Respirator with headpiece “hood” 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
Blower level: third fan stage; Hood: X-plore 8000 premium hood, long (S/M); Volume flow: Q = 210 lpm; Maximum inward leakage: $Q_L \leq 0.2$ %	4
Overall result	

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

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