



valid until: April 22, 2031

Fraunhofer

TESTED[®] DEVICE

Polyflor Ltd
Polyclad Plus PU (Polar Ice)
Report No. PO 2604-1747

DUPLICATE

Statement of
Qualification

Single product
Particle Emission
in Cleanroom
(atmospheric)

Statement of Qualification · Single product

Customer
 Polyflor Ltd
 PO Box 3, Radcliffe New Road, Whitefield
 Manchester M45 9NR
 United Kingdom

Tested product

Category: Cleanroom facility

Subcategory: Wall/Ceiling/Floor/Door

Product name: Wall cladding Polyclad Plus PU (Polar Ice)
 (manufacturing date: 1/28/2025; color: 2840 Polar Ice; batch number: 5T220)

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 m/s
- Airflow pattern:..... vertical laminar flow
- Room temperature:22 °C ± 0.5 °C
- Relative humidity: 45 % ± 5 %

Test procedure parameters: The wall was subjected to stress as follows:

- Structure-borne noise: approx. 50 Hz
- Oscillation velocity (\emptyset):..... $v = 2.0294$ to 2.2706 mm/s
- Oscillation acceleration (\emptyset):..... $a = 0.0774$ to 0.1307 m/s^2
- Deflection of the system (\emptyset):..... $s = 0.3380$ to 0.4672 mm

Test result / Classification

The wall cladding Polyclad Plus PU (Polar Ice) 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 Class according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Structure-borne noise = approx. 50 Hz	1
Overall result	

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.