

15.3.2017



Certificate of Qualification

Cleanroom Suitability of Treston ESD Bins

1949-4ESD, 4020-4ESD, 30-2L-4ESD, 1930-4ESD

The cleanroom suitability of Treston ESD Bins was assessed in the cleanroom of ISO 14644-1 class 7, February 2017. The requirements of ISO class 7 were met at rest and in operation. Summary of the qualification is shown in Table 1. Detailed information is presented in a technical report C515/2017.

Table 1: General Information

Client	Treston Oy, Sorakatu 1, 20730 Turku
Contact	Kimmo Lehti, +358 50 395 8562, kimmo.lehti@treston.com
Dates of Test	February 9 – 16, 2017
Place of Test	Cascade Metrology, Electrostatics Laboratory, Hakulintie 32, 08500 Lohja GSM +358 4456 88 599
Conditioning	ISO Class 7, $RH = (25 \pm 5) \%$, $T = (23 \pm 3) ^\circ\text{C}$
Samples under Test	Storage bin 1949-4ESD, Shelf bin 4020-4ESD, Picking bin 30-2L-4ESD, Stacking bin 1930-4ESD
Test Equipment	Particle counter Climet CI 500 SN 956475, Temperature and humidity meter Vaisala HM 41 SN M1850876, Sensor Vaisala HMP 113 SN M1750872
Assessment Criteria	EN ISO 14644-1:2015 Cleanrooms and associated controlled environments - Part 1: Classification of air cleanliness by particle concentration
Summary of Results	Requirements of ISO class 7 were met at rest and in operation. The requirements of ISO class 6 were also met at rest with the large particle sizes $> 0.5 \mu\text{m}$.
Note	This certificate may only be reproduced in full, except with the prior written permission by issuing laboratory. The results relate only to the tested items.
Date and place	Author
Lohja 15.3.2017	  Toni Viheriäkoski, CEO, Cascade Metrology, ESD Engineer

