

30.7.2020

Certificate of Qualification

ESD control items – Dr. Schutz® ESD Control Flooring



Resistance to groundable point of sample boards was measured in accordance with IEC 61340-4-1:2003+A1:2015. Person footwear flooring system was assessed in accordance with IEC 61340-4-5:2018. Table 1 shows the different flooring structures installed on plywood boards. Summary of the qualification is presented in Table 2. Detailed information on testing is provided in a technical report C697/2020 V1.1.

Table 1: Sample boards, Dr. Schutz®

1.	Non-conductive PVC, Copper wire, 2x ESD Color Base, 1x ESD Top Coat
2.	Non-conductive Epoxy, Copper wire, 2x ESD Color Base, 1x ESD Top Coat
3.	Non-conductive Epoxy, ESD HiCon Primer, Copper wire, 2x ESD Color Base, 1x ESD Top Coat
4.	Conductive PVC, 1x ESD Medicoat
5.	Conductive PVC, 2x ESD Base Coat, 1x ESD Top Coat
6.	Conductive PVC, 2x ESD Color Base, 1x ESD Top Coat
7.	Conductive Epoxy, 2x ESD Color Base, 1x ESD Top Coat

Product IDs: Dr. Schutz® - HiCon Primer, ESD Color Base, ESD Base Coat, ESD Top Coat and ESD Medicoat.

Table 2: Summary of qualification tests

Client	Dr. Schutz, Holbeinstr. 17, 53175, Bonn, Germany
Contact	Gerhard Schäfer, gsc@dr-schutz.com , +49 172 68 444 78
Dates of Test	July 23 – 27, 2020
Place of Test	Cascade Metrology, Electrostatics Laboratory, Hakulintie 32, 08500 Lohja, +358 4456 88 599
Conditioning	48 hours, $T = (23 \pm 2) ^\circ$, $RH = (12 \pm 3) \%rh$
Test Equipment	MIT415/2 Sn 101489531, 3M 711 Sn 20980308, TDS 2022 Sn C031701
Test Method(s)	IEC 61340-4-1:2003+A1:2015, IEC 61340-4-5:2018
Assessment Criteria	IEC 61340-5-1:2016, IEC 61340-6-1:2018
Summary of results and conclusions	The sample boards met the requirements of flooring used to ground personnel and equipment in reference to IEC 61340-6-1:2018 ($R_{gp} < 1 \text{ G}\Omega$). The sample boards met the electrostatic protected area requirements in reference to IEC 61340-5-1:2016 ($R_{gp} < 1 \text{ G}\Omega$). Personnel grounding requirements of the person/footwear/flooring system were met with the tested person/footwear combinations (IEC 61340-5-1:2016).
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 30.7.2020	Toni Viheriäkoski, CEO, Cascade Metrology, ESD Engineer