

DUPLICATE





Fraunhofer TESTED[®] DEVICE igus GmbH e-skin flat 3 layers Report No. IG 2107-1242

Statement of Qualification

Single product
Particle Emission

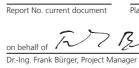
Statement of Qualification • Single product

Customer	igus GmbH Spicher Strasse 1a 51147 Cologne Germany	Test result / ClassificationWhen operated 3 layers with su for use in clean ness Classes acc
Component tested		Test paramete v ₁ = 0.5 m/s; a
Category:	Energy Supply	v ₂ = 1.0 m/s; a
		v ₃ = 2.0 m/s; a
Subcategory:	Cable Systems	Overall result
Product name:	e-skin flat single pod 3 layers with support chain, CFCLEAN3.01.05.02 & CAPU.A.06.0	
	(manufacturing date: 10/5/2020; color: white; charge number: 4927146; serial number: SKF12O/SKF12C)	Please note: Tra can influence th
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.	
	Optical particle counter: LasAir II 110 and LasAir III 110 with measuring ranges $\ge 0.1 \mu\text{m}$, $\ge 0.2 \mu\text{m}$, $\ge 0.3 \mu\text{m}$, $\ge 0.5 \mu\text{m}$, $\ge 1.0 \mu\text{m}$ and $\ge 5.0 \mu\text{m}$	
Test environment parameters:	 Cleanroom Air Cleanliness Class (according to ISO 14644-1):	
Test procedure parameters:		
	• Clearance hight:	The measuring devices used for the qualification tests are calibrated at r and international standards. In cases where no national standards exist, regulations and norms applicable at the time of the test. The relevant de
		Detailed information and parameters of the test environment can be for
		Fraunhofer Institute for Manufacturing Engineering and Automation IPA



Department of Ultraclean Technology and Micromanufacturing

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Report No. first document

erated under the specified test conditions, the e-skin flat single pod vith support chain, CFCLEAN3.01.05.02 & CAPU.A.06.0 is suitable cleanrooms fulfilling the specifications of the following Air Cleanlises according to ISO 14644-1:

eter(s)	Air Cleanlines Class
; $a_1 = 1.0 \text{m/s}^2$	1
; $a_2 = 2.0 \text{m/s}^2$	1
; $a_3 = 4.0 \text{m/s}^2$	1
ult	1

te: Transport damages, incorrect installation, aging behavior, etc. ence the test result.

ed at regular intervals; their results can be traced back to national exist, the test procedure implemented complies with the technical vant documentation can be viewed on request at any time.

be found in the Fraunhofer IPA test report.

	This document only
	applies to the named
	product in its original stat
Stuttgart, August 18, 2021	and is valid for a period o
Place, date of first document issued	5 years from the date the
	first document was issued
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Place, current date	verified under
	www.tested-device.com
er Fraunhofer IPA	