



Fraunhofer

TESTED[®] DEVICE

igus GmbH
energy chain P4.42.15CR.150.0
Report No. IG 1607-838

Particle Emission

Qualification Certificate

This is to certify that the product mentioned above, provided by

igus GmbH
Cologne, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number IG 1607-838.

When operated under the specified test conditions, the P4.42.15CR.150.0 - profile-rol e-chain clean room (color: black/beige) 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
$v_1 = 0.5 \text{ m/s}; a_1 = 1.0 \text{ m/s}^2$	6
$v_2 = 1.0 \text{ m/s}; a_2 = 2.0 \text{ m/s}^2$	6
$v_3 = 2.0 \text{ m/s}; a_3 = 4.0 \text{ m/s}^2$	7
Overall result	7

A visual inspection of the test piece according to VDI 2083 Part 9.1 has shown massive signs of abrasion from the plastic components of the energy chain, which make any classification based on the concentrations of airborne particles obsolete. The use of the energy chain in cleanrooms cannot be recommended.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Stuttgart, September 30, 2016

on behalf of 
Frank Bürger, Project manager Fraunhofer IPA

DUPLICATE

The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.

Further information:

www.tested-device.com