



Fraunhofer

**TESTED[®]
DEVICE**

DENSO WAVE Inc.
PC (VG1950)

Report No. DE 1409-725

DUPLICATE

Statement of
Qualification

Biological Resistance

Statement of Qualification

Customer

DENSO WAVE Inc.
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470-2297 Aichi
Japan

Component tested

Category: Materials

Subcategory: Plastics

Product name: PC (VG1950)
(manufacturing date: 12/2014; color: black)

Biological resistance test

Standards/Guidelines: ISO 846; VDI 2083-18
The norms stated refer to the relevant editions applicable at the time of the tests.

Test environment parameters: Microbiological laboratory:.....S2

Test procedure parameters:

- Fungus test (Procedure A) using spore suspension containing:
 - Aspergillus niger
 - Penicillium funiculosum
 - Paecilomyces variotii
 - Gliocladium virens
 - Chaetomium globosum
- Bacteria test (Procedure C) using bacteria suspension containing Pseudomonas aeruginosa
- Incubation at 24 °C (Procedure A) respectively 29 °C (Procedure C) and 95 % relative humidity. Visual analysis after four (4) weeks

Test result / Classification

Biological resistance	ISO growth intensity	Classification
Fungi (Procedure A)	1	very good
Bacteria (Procedure C)	1	very good
Overall result	1	very good

Biological resistance has been classified on the basis of a worst-case consideration of Procedures A and C. In the process, growth intensity was assessed according to the classification system used in ISO 846:

0 = excellent 3 = poor
1 = very good 4 = very poor
2 = good 5 = none

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.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.