

Test report No.: **1003-1-08-WW**

Customer: Riensch & Held GmbH & Co. KG
Hans-Duncker-Str. 1
21035 Hamburg
Germany

Order: Mr. Horst von Ludowig of 19 December 2007

Aim of test: Dust technical test

Product: Laser printer with fine dust filter

Identification and number of test objects:

1 Brother HL 1250 (used)
with fine dust filter (prototype) code 1003-08

Date and place of test: 08 – 17 January 2007 Testing laboratories SLG

Basis and regulations: Offer 07-W-Eng-0217 of 19 December 2007

The test results are valid only for the test objects this report refers to.
The test report is not allowed to be published in any form without former written approval by SLG
Laboratory.

Responsible for the test:

Tested by:

Frank
Head of Department

Dr. Wappler
Testing engineer

Dust technical test on the laser printer Brother HL 1250

Order: 1003-1-08-WW

Person in charge: wa

Test object: Laser printer Brother HL 1250 (used)

Filter configuration: Configuration option "without fine dust filter":
(commercially available, standard device) ; and

Configuration option "with fine dust filter":
additional filter (CLEAN OFFICE) glued onto air outlet along the
frame, air outlet completely covered by the filter.

Measuring method: Adaption of the method used for particle discharge evaluation of devices which steam out exhaust air in the room air.
Particle probe 10 cm behind the printer air outlet, axial-centred.
Optical particle counter Abakus, air flow rate 28,3 l/min.
Particle size range: 0,3 μm - 19,3 μm , analysed in 8 channels.
Measuring spacing 30 sec. Emission values generated for particle density 2,2 g/cm³.

Test procedure and results:

Option "without fine dust filter":

1. Preparation: printer (switched off) installed in the test room.
Emission background average 0,0006 mg/m³.
2. t = 0 min: printer switched on (stand-by).
Emission values slightly increased. Average 0,0009 mg/m³.
3. t = 10 min: printing of 10 pages (time period approx. 1 min)
Emission peak: 0,0035 mg/m³
4. t = 20 min: printing of 10 pages (time period approx. 1 min)
Emission peak: 0,0060 mg/m³
5. t = 30 min: printing of 10 pages (time period approx. 1 min)
Emission peak: 0,0047 mg/m³

During the three printing cycles (started at t = 10 min, 20 min and 30 min) a similar integral increase of emission was detectable.

Option "with fine dust filter":

1. Preparation: printer (switched off) installed in the test room.
Emission background average 0,0005 mg/m³.
2. t = 0 min: printer switched on (stand-by).
Hardly any emission changes compared to initial emission background.
Average 0,0004 mg/m³.
3. t = 10 min: printing of 10 pages (time period approx. 1 min)
Hardly any emission changes compared to initial emission background.
4. t = 20 min: printing of 10 pages (time period approx. 1 min)
Hardly any emission changes compared to initial emission background.
5. t = 30 min: printing of 10 pages (time period approx. 1 min)
Hardly any emission changes compared to initial emission background.

In comparison to the option "without fine dust filter", the emission "with fine dust filter" was slightly lower and more constant after switching on the printer (t = 0 to 10 min), and not distinguishable from the initial emission background.

In contrast to the option "without fine dust filter", with the option "with fine dust filter" during as well as after the three printing cycles (started at t = 10 min, 20 min and 30 min) no increase of emission was detectable compared to initial emission background.