



- IUTA-CERTIFICATE -
Validation of compressed air filters
in the style of ISO 12500-2:2007^{1,2}
(Filters for compressed air – Test methods – Oil vapours)

¹ISO 12500-2:2007 demands the measurement of breakthrough at 1 mg/kg (0,03 ppm) with an inlet concentration of 1000 mg/kg.
 A breakthrough at 0.03 ppm cannot be quantified due to the lower detection limit of the FID. Moreover at the demanded inlet concentration the breakthrough occurs immediately in a non evaluable time. For this reason the inlet concentration was reduced.
 The breakthrough curve as well as the calculated adsorbate was therefore recorded up to the time of 80 % breakthrough.

²Nominal flow unknown.

Customer: ultra.air gmbh, Im Hülsenfeld 13, 40721 Hilden, Germany
Tested product: 3 cartridges, model "AK 04/10 122120"
Manufacturer: Ultrafilter GmbH, Hilden, Germany
IUTA test report: UN2-150930-T55969.00-068b revision 1

Test parameters Inlet pressure Air flow for testing Test agent (n-hexane) concentration in air	7 bar (e) [8 bar (a)] 50 Nm ³ /h 100 mg/kg air \triangleq 33.6 ppm			
Test results	Cartridge 1	Cartridge 2	Cartridge 3	Average
Pressure drop [mbar]*	10	10	10	10
Time until 80 % breakthrough [min]	60	60	60	60
Mass of test agent adsorbed [mg] (until 80 % breakthrough)	4130.2	4016.9	4171.8	4106.3

*Pressure drop measured upstream and downstream of the filter-housing.

The cartridges were mounted in filter housing model "AG 0009 HA"

Duisburg, 29 January 2016

Head of Department

Managing Director