

Molecular Filter Lifetime Determination Report

Camfil Authorized Distributor

Rep/Dist/RSM: **Camfil Ltd**

Street address: **Knowsley Road**

City: Haslingden State: Lancashire **BB4 4EG** Zip Code:

Phone: +44 1706 238000

Mobile:

Fax: +44 1706 226736

Email: Anna.Bartnik@camfil.com

Customer site information

2015-Feb-26 Report date:

Company: Contact: Contact email: Building:

Air

Air Flow,[m3/h]: 180.0 $Temperature, [^{\circ}C]:$ 23.0 Atm.Pressure,[hPa]: 1,013 Relative humidity,[%]: 50

Contamination: Nitrogen Dioxide [NO2]

33.2 [0.063 mg/m³] Concentration,[ppb]:

Nitrogen Dioxide

Chemical formula: NO2 Molecular weight, [g/mol]: 46 Boiling point,[°C]: 21.2

Vapour pressure,[kPa]: 96 [720 mm hg] CAS No: 10102-44-2

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Solution

Filter Group : Panel

Filter Type : Camsure Panel

Media: CEX003A6

Filter size:

(Height x Length x Depth), [mm] **305 x 305 x 48**

No of filters per stage : 1 (Total Filters : 1)

Total Filter Stage : 1

Eff. media weight,[kg] : 2.5 [±10%]

Front Velocity,[m/s]: 0.54

Pressure Drop,[Pa]: 127 [±15%]

Contact time,[sec]: 0.09



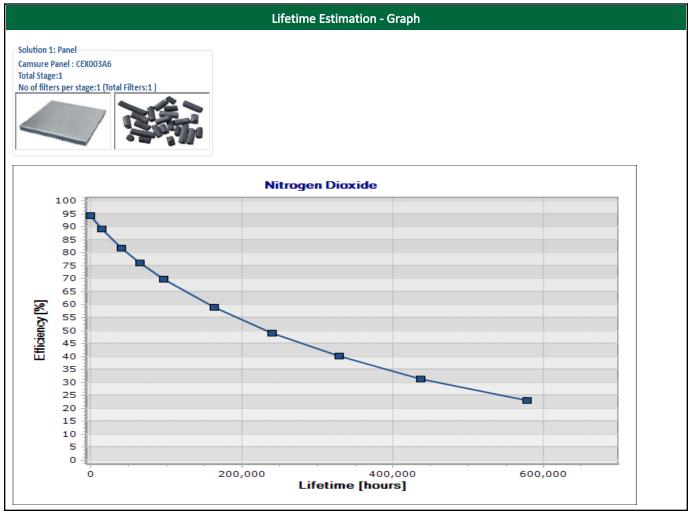


Efficiency,[%]	Lifetime,[Hours]
94.36	73.94
89.13	14,788.36
81.81	41,078.79
76.1	65,726.06
69.86	96,945.94
58.84	164,315.15
49.08	239,900.11
40.03	328,630.29
31.44	437,078.29
23.13	578,389.31

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Molecular Filtration Life Time Software:

The purpose of this software is to provide "best estimates" of the performance of Camfil molecular filtration products under selectable conditions that approximate real applications. Predicting the performance of molecular filters in the real world is a complex issue. This software takes account of the key factors that affect the performance of molecular filters; the gas/vapour to be controlled, concentration, type of adsorbent (contact time), and temperature. For simplicity, an assupption is made regarding relative humidity which is pre-set at 50%. The software takes no account of the presence of any other contaminants considered to be non-problematic. The software takes no account of changes in the selected conditions during filter use.

The software is based upon many years application knowledge and the results of extensive product testing in Camfil's unique molecular filtration test rig.

This software may be revised by Camfil at any time without notice.:

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