



Reg.Nr. 4331-03

## Analytical Report

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Abteilung:	Analytik	Telefon:	80-4845	Lfd. Nr.	Datum	Seite
Bearbeiter:	Dr. Altdorf	Fax-Nr.:	88-3549	A1227-01	17.10.01	1 von 2

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Two black Foams: 19 K-FLEX ST (plate) and 19 114 K-FLEX-EC-I (tube).

Auftraggeber: Herr Dr. Wöss  
Kostenstelle:  
SAP-Nummer: 2000460

Eingangsdatum: 11.09.01  
Fertigstellung: 10.10.01  
Auftragsnummer:

### Order:

Two foams were tested for their effectiveness in clean rooms.

### Method:

The two foams were measured according to the ASTM Designation: F51-00. But the sampling technique had to be changed, because the airstream could not be drawn through the foam. A sample channel was adapted by the filter assembly.

A sample of 10X4 cm of each foam was inserted three times into the channel and the airstream was blown over the free surface of the foam.

On a white, 0.80 µm pore size, 50 mm diameter filter the particles were sampled. But only the inner free 40 mm-diameter part of the filter could be used for the sampling.

The black particles were counted in horizontal and vertical areas of 40X1 mm. The calculation of the total number of particles is based on the three measurements.

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Verteiler: Herr Dr. Wöss, Isolante Service GmbH, Hövelhof  
Herr Dr. Marengi, Isolante K-Flex, Roncello, Italy  
A-Vorgang



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Results:


Foam designation	Particles per 0,1 m <sup>2</sup>	Contamination Class
19 K-FLEX ST (plate)	942	A
19 144 K-FLEX EC-I (tube)	665	A

The particles size are between 5 and 50 µm. Class A = Contamination Level (maximum particles per 0.1 m<sup>2</sup> foam): 999 particles >5µm.

Normally no particles can blow up from the surface of the foams. But in these measurements we blew the air over the closed skin and over the cut edges of the foam. Only the cutting process will produce some particles. In reality, the cut edges of the foam are covered by an adhesive tape.

The test results refer exclusively to the test items and/or samples referred to above. Excerpts of the present test report may not be duplicated without the written approval of the Analytical Laboratory.

Freudenberg Forschungsdienste

  
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 Diplomchemiker

Enclosers:  
 Pictures of measurements