

# VOC Emissions Test report

L isolante K-Flex S.r.l

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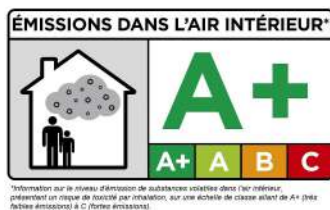
Date  
07/02/2012  
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## 1. Sample Information

Sample identification	K-Flex EC
Product type	Insulation
Batch no.	-
Production date	-
Date when sample was received	11/11/2011
Testing (start - end)	14/12/2011 - 11/01/2012

## 2. Resulting VOC Emissions Class Label

This recommendation is based on French regulation as published on 25 March 2011 (décret DEVL1101903D) and on 13 May 2011 (arrêté DEVL1104875A). For details please see [www.eurofins.com/france-voc](http://www.eurofins.com/france-voc)



## 3. Conclusion on CMR emissions

The tested product fulfills the requirements of the French regulation DEVP0908633A of 30 April 2009 and DEVP0910046A of 05 May. For details please see [www.eurofins.com/france-voc](http://www.eurofins.com/france-voc).

The results are only valid for the tested sample(s).

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#### 4. Test Method

Method	Principle	Parameter	Detection limit	Uncertainty	
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400	GC/MS HPLC/UV	VOC Volatile aldehydes	5 µg/m <sup>3</sup> 5 µg/m <sup>3</sup>	22% (RSD) Um = 2 x RSD= 45 %	
<b>Test chamber parameter</b>					
Chamber volume (L):	119	Temperature (C):	23	Relative humidity (%):	50
Air change rate (per hour):	0.5	Loading ratio(m <sup>2</sup> /m <sup>3</sup> )	1		
<b>Test condition: Sample stayed in test chamber during the whole 28 days testing period.</b>					
<b>Sample preparation</b>					
Stainless steel frame					

## 5. Results

	Concentration after 28 days $\mu\text{g}/\text{m}^3$	C	B	A	A+
TVOC	94	>2000	<2000	<1500	<1000
Formaldehyde	5.9	>120	<120	<60	<10
Acetaldehyde	<3	>400	<400	<300	<200
Toluene	<2	>600	<600	<450	<300
Tetrachloroethylene	<2	>500	<500	<350	<250
Ethylbenzene	<2	>1500	<1500	<1000	<750
Xylene	<2	>400	<400	<300	<200
Styrene	<2	>500	<500	<350	<250
2-Butoxyethanol	<2	>2000	<2000	<1500	<1000
Trimethylbenzene	<2	>2000	<2000	<1500	<1000
1,4-Dichlorobenzene	<2	>120	<120	<90	<60
<b>CMR compounds</b>		Maximum allowed air concentration			
Benzene	<0.2			<1	
Trichloroethylene	<0.2			<1	
Dibutylphthalate (DBP) *	<0.2			<1	
Diethylhex-ylphthalate (DEHP) *	<0.5			<1	

< Means less than

> Means higher than

\* Not a part of our accreditation (EN ISO/IEC 17025:2005) by DANAK (no. 522))



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