Sager AG
Dornhügelstrasse 10
5724 Dürrenäsch
Schweiz

Eurofins Product Testing A/S
Smedeskovvej 38
8464 Galten
Denmark

voc@eurofins.com
www.eurofins.com/voc-testing

Date
12 October 2012

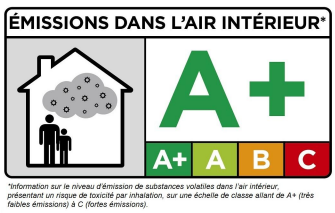
VOC Emissions Test report

1. Sample Information

Sample identification	SBR 0225 R
Product type	Insulation
Batch no.	1
Production date	01/09/2012
Date when sample was received	05/09/2012
Testing (start - end)	07/09/2012 - 05/10/2012

2. Resulting VOC Emissions Class Label

This recommendation is based on French regulation of March 23, 2011 (décret DEVL1101903D) and of April 19, 2011 (arrêté DEVL1104875A). For details please see www.eurofins.com/france-voc



The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result. As specified in French Decree no. 2011-321 of March 23, 2011, correct assignment of the VOC emission class is the sole responsibility of the party responsible for distribution of the product in the French market.

3. Conclusion on CMR emissions

The tested product fulfills the requirements of the French regulation DEVP0908633A of 30 April 2009 and DEVP0910046A of 28 May 2009. For details please see www.eurofins.com/france-voc.

4. Test Method

Method	Principle	Parameter	Quantification limit	Uncertainty
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400	GC/MS HPLC/UV	VOC Volatile alde-hydes	2 µg/m³ 3 µg/m³	22% (RSD)
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400, 2616	HPLC/UV	4CMR	<1 µg/m³	Um = 2 x RSD=45 %

Test chamber parameter					
Chamber volume, l	119	Temperature, °C	23±1	Relative humidity, %	50±5
Air change rate, 1/h	0.5	Loading ratio, m²/m³	0.4		
Test condition: Sample stayed in test chamber during the whole 28 days testing period.					
Sample preparation					
Edges and back covered with aluminum foil and tape					

5. Results

	Concentration after 28 days µg/m³	C	B	A	A+
TVOC	<2	>2000	<2000	<1500	<1000
Formaldehyde	8.6	>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
CMR compounds		Maximum allowed air concentration			
Benzene	<1	<1			
Trichloroethylene	<1	<1			
Dibutylphthalate (DBP) *	<1	<1			
Diethylhex-ylphthalate (DEHP) *	<1	<1			

< Means less than
> Means higher than
* Not a part of our accreditation (EN ISO/IEC 17025:2005) by DANAK (no. 522))

Thomas Neuhaus
Head of product emission test centre

Dr. Arja Valtanen
Analytical Service Manager