



ANALYTICAL REPORT

Customer: Alan Whittaker
Cavalier Bremworth

Your Reference: 100% Wool Cut Pile
G497 / 100oz

SGS Report Number: ENV 22474 (SE141160)

Date of Receipt of Samples: 6th July, 2015

Date of Sampling: 7th July – 9th July, 2015

The samples were analysed in accordance with your instructions. The results and associated information are contained in the following pages of the report. Should you have any queries regarding this report please contact the undersigned.

Reported by: Dr David Stone

Date: 17/7/2015

Report authorised by: Dr Peter Novella

Date: 21/7/2015

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Sample Description:

One piece of wool pile carpet which was received wrapped in 2-3 layers of aluminium foil, and was cut to 300mm X 300mm, and then fitted inside the test chamber.

Methods Used:

Emission rate of volatile compounds calculated using method satisfying ISO 10580:2010. The sample was prepared for analysis, by removing the aluminium foil layers and placing in the test chamber, equilibrated, and was kept in the sealed test chamber and overnight with a constant flow (100ml/min) of instrument grade air at 50-55% humidity. After 24 hours a sample of gas from the test chamber, and the internal standards, were trapped onto individual adsorbent tubes, and analysed by the US EPA TO-17 (air toxic) method for volatile organic compounds. Each sample tube was thermally desorbed at 250C using a Markes UNITY 1 interfaced to a Hewlett Packard 5973 Mass Selective detector.

Analytical Results:

Carpet: surface area of material 0.09 m²
 Dominant chemicals; Styrene, 4-vinyl cyclohexene, xylenes
 Precision; +/- 0.02 mg/m²/h
 Method is equivalent to ASTM D5116-90.

Carpet sample		
Chemical	Carpet institute of Australia Environmental Certification Scheme	Emission rate mg/m ² /h
Formaldehyde	<0.01 mg/m ² /h	0.008
Acetaldehyde	<0.02 mg/m ² /h	0.018
Vinyl Acetate	<0.40 mg/m ² /h	<0.002
Benzene	<0.055 mg/m ² /h	0.002
Toluene	<0.28 mg/m ² /h	0.008
Xylenes	<0.05 mg/m ² /h	0.008
Styrene	<0.41 mg/m ² /h	0.046
4-Vinyl cyclohexene	<0.085 mg/m ² /h	<0.002
4-Phenyl cyclohexene	<0.05 mg/m ² /h	0.009
Naphthalene	<0.02 mg/m ² /h	<0.005
Hydrocarbons (C10 – C14)	<0.30 mg/m ² /h	0.03
2-Ethyl-1-Hexanol	<0.05 mg/m ² /h	<0.002
2-Ethylhexanoic Acid	<0.046 mg/m ² /h	<0.005
1-Methyl-2-Pyrrolidinone	<0.30 mg/m ² /h	<0.005
Caprolactam	<0.12 mg/m ² /h	<0.005
Octanal	<0.024 mg/m ² /h	0.013
Nonanal	<0.024 mg/m ² /h	0.018
Total		0.30

Opinions and Interpretations:

The desired emission rate, to achieve Green-Star rating, is 0.5 mg/m²/h (milligram per square metre per hour), which was achieved for this sample of carpet tile, and for all the compounds listed.