



ANALYTICAL REPORT - SE172056-1

Customer: Michael Acraman
THERMOTEC

Your Reference: Thermal Insulation
E-flex ST

SGS Report Number: ENV 27234 SE172056-1

Date of Receipt of Samples: 9th November, 2017

Date of Sampling: 13th November - 17th November, 2017

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.

NATA accreditation file: <http://nata.asn.au/index.php/scopeinfo/?key=4354>

Reported by: Dr David Stone

Date: 17/11/2017

Report authorised by: Dr Peter Novella

Date: 20/11/2017

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Sample Description:

SE172056-1

Two pieces of Thermal Insulation (300mm X 200mm) individually wrapped in 2-3 layers of aluminium foil, was fitted inside the test chamber.

Methods Used:

Emission rate of volatile compounds calculated using method satisfying ISO10580:2010. 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 (200ml/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:

Thermal Insulation: surface area of material 0.06 m²
 Dominant chemicals; hydrocarbons
 Precision; +/- 0.02 mg/m²/h
 Method used: ASTM D5116-90.

Thermal Insulation samples		
Chemical	Carpet and Rug Institute Green label Plus Specification	Emission rate mg/m ² /h E-flex HT
Formaldehyde	<0.017 mg/m ² /h	<0.002
Acetaldehyde	<0.130 mg/m ² /h	<0.004
Vinyl Acetate	<0.190 mg/m ² /h	<0.002
Benzene	<0.055 mg/m ² /h	<0.003
Toluene	<0.280 mg/m ² /h	0.002
Styrene	<0.410 mg/m ² /h	<0.002
4-Phenylcyclohexene	<0.051 mg/m ² /h	<0.0006
Naphthalene	<0.084 mg/m ² /h	<0.0005
2-Ethylhexanoic Acid	<0.047 mg/m ² /h	<0.005
1-Methyl-2-pyrrolidinone	<0.300 mg/m ² /h	<0.005
Caprolactam	<0.130 mg/m ² /h	<0.005
Octanal	<0.014 mg/m ² /h	<0.002
Nonanal	<0.024 mg/m ² /h	<0.003
Total	<0.5	0.004

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 Thermal Insulation, and for all of the compounds listed.