




ENVIRONMENTAL CHAMBER TEST REPORT WITH MODELING					
Product Description:		TAPETEX WALL MATERIAL, MULTI-LAYER NONWOVEN OF CELLULOSIC AND POLYESTER FIBRES WITH A MAXIMUM WEIGHT OF 400 GR/M ² (11.80 OZ/SQ/YD)			
SUMMARY		Environment	TVOC	Formaldehyde	Total Aldehydes
	GREENGUARD	Office	✓	✓	✓
	GREENGUARD Gold	Office	✓	✓	✓
		Classroom	✓	✓	✓
<p>✓ - predicted to meet criteria; X - predicted to exceed criteria</p> <p><i>This test data is provided for general informational purposes only. The data indicate the level of emissions from the designated product and how they compare to the emission criteria of the GREENGUARD IAQ standard. This data does not imply that the product has been qualified to meet the requirements of the GREENGUARD Certification program nor does it imply that the product is or is not certified by the GREENGUARD Certification program.</i></p>					

Manufacturer Information:	TAPETEX B.V. CHARLES DIMOTTA CHURCHILLAAN 10 5705 BK HELMOND NETHERLANDS
Laboratory Approval:	 Allyson M. McFry Chemistry Laboratory Director

SAMPLE INFORMATION	
Testing Laboratory Location:	UL Environment 2211 Newmarket Parkway Marietta, GA 30067-9399 USA
Test Description:	The product was received by UL Environment as packaged and shipped by the customer. The package was visually inspected and stored in a controlled environment immediately following sample check-in. Just prior to loading, the product was unpackaged, prepared for the required loading to expose the top surface side only. The sample was placed inside the environmental chamber, and tested according to the specified protocol.
Date Received at UL Environment:	February 19, 2018
Test Period:	March 1, 2018 - March 2, 2018
Area:	one-sided area = 0.0829 m ²
Chamber Volume:	0.0850 m ³
Product Loading:	0.98 m ² /m ³
Test Conditions:	1.00 ± 0.05 ACH 50% RH ± 5% RH 23° C ± 1° C

RESULTS						
Analyte	24 Hour Emission Factor (µg/m ² •hr)	Certification Criteria		168 Hour Predicted Concentration		
		GREENGUARD	GREENGUARD GOLD	GREENGUARD	GREENGUARD Gold	
					Office	Classroom
TVOC	16.1	≤ 0.5 mg/m ³	≤ 0.22 mg/m ³	0.017 mg/m ³	0.017 mg/m ³	0.005 mg/m ³
Formaldehyde	BQL	≤ 0.05 ppm	≤ 0.0073 ppm	< 0.002 ppm	< 0.002 ppm	< 0.001 ppm
Total Aldehydes	7.7	≤ 0.1 ppm	≤ 0.043 ppm	0.004 ppm	0.004 ppm	0.001 ppm

MODELING PREDICTED CONCENTRATION PARAMETERS					
Certification Program	Environment Basis	Product Usage	Surface Area (m ²)	Room Volume (m ³)	ACH (1/hr)
GREENGUARD and GREENGUARD Gold Office	CDPH/EHLB/Standard Method	wall	33.4	30.6	0.68
GREENGUARD Gold Classroom	CDPH/EHLB/Standard Method	wall	94.6	231	0.82

IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS AT 24 ELAPSED EXPOSURE HOURS		
CAS Number	Compound Identified	Emission Factor (µg/m ² •hr)
105-60-2	ε-Caprolactam (2H-Azepin-2-one, hexahydro) [†]	26.7
71-36-3	1-Butanol (N-Butyl alcohol) [†]	3.8
124-19-6	Nonyl aldehyde (Nonanal) [†]	2.4

*Indicates NIST/EPA/NIH best library match only based on retention time and mass spectral characteristics.

[†]Denotes quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS		
CAS Number	Compound Identified	Emission Factor (µg/m ² •hr)
4170-30-3	2-Butenal	BQL
75-07-0	Acetaldehyde	5.3
100-52-7	Benzaldehyde	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL
620-23-5 / 104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL
123-72-8	Butanal	BQL
590-86-3	Butanal, 3-methyl	BQL
50-00-0	Formaldehyde	BQL
66-25-1	Hexanal	BQL
110-62-3	Pentanal	BQL
123-38-6	Propanal	BQL

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Analyses based on EPA Compendium Method TO-17 and ASTM D 6196 for VOCs by thermal desorption followed by gas chromatography/mass spectrometry (TD/GC/MS), and EPA Method TO-11A and ASTM D 5197 for selected aldehydes by high performance liquid chromatography (HPLC).

BQL denotes below quantifiable level of 0.04 µg based on a standard 18 L air collection volume for TVOC and individual VOCs and 0.1 µg based on a standard 45 L air collection volume for formaldehyde and total aldehydes.

Testing followed UL 2821, "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions From Building Materials, Finishes and Furnishings Using Dynamic Environmental Chambers" 2013.

This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AT-1297.

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