

## **TEST REPORT**

DATE: 04/12/2008	TEST NUMBER: 113474
CLIENT	Masland Carpets
	ASTM E662-03 Smoke Density (Non-Flaming) Standard Test Method for
TEST METHOD CONDUCTED	Specific Optical Density of Smoke Generated by Solid Materials also

referenced as NFPA 258

	DESCRIPTION OF TEST SAMPLE		
IDENTIFICATION	T423 Brush Strokes		
COLOR	04201 Batik		
ROLL			
CONSTRUCTION	Multi-Level Loop Pile		
FIBER			
BACKING	TL		
REFERENCE			

## **GENERAL PRINCIPLE**

This procedure is designed to measure the specific optical density of smoke generated by the test specimen within a closed chamber. Each specimen is exposed to an electrically heated radiant-energy source positioned to provide a constant irradiance level of 2.5 watts/square cm on the specimen surface. Measurements are recorded through a photometric system employing a vertical beam of light and a photo detector positioned to detect the attenuation of light transmittance caused by smoke accumulation within the chamber. The light transmittance measurements are used to calculate specific optical density, a quantitative value which can be factored to estimate the smoke potential of materials. Two burning conditions can be simulated by the test apparatus. The radiant heating in the absence of ignition is referred to as the Non-Flaming Mode. A flaming combustion in the presence of supporting radiation constitutes the Flaming Mode.

CONDITIONS						
PREDRYING OF TEST SAMPLE CONDITIONING OF TEST SAMPLE	24 Hours at 140° F 24 Hours at 70° F an	24 Hours at 140° F 24 Hours at 70° F and 50% Relative Humidity				
FURNACE VOLTAGE CHAMBER TEMPERATURE TEST MODE	119 V 95° F Non-Flaming	IRRADIANCE CHAMBER PRESSURE	2.5 watts/sq cm 3" H <sub>2</sub> O			

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		NON-FLAMING	448
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			89
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	471.0	484.0	456.0
Time to Dm (minutes)	15.0	13.0	14.0
Clear Beam (Dc)	21.0	25.0	20.0
Corr. Max Density (Dmc)	450.0	459.0	436.0
Density at 1.5 minutes	3.0	2.0	2.0
Density at 4.0 minutes	92.0	92.0	82.0
Time to 90% Dm (minutes)	10.0	9.0	7.0
Specimen Weight (grams)	27.8	27.5	27.6

<sup>\*</sup> This sample PASSES the requirements of 450 or less as listed in NFPA Life Safety Code 101.

APPROVED BY:

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