

## **TEST REPORT**

CLIENT	Masland Carpets	
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	ASTM E662-03 Smoke Density (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	7816 Rhythm		
COLOR			
ROLL	514140B		
CONSTRUCTION	Multi-Level Loop Pile		
FIBER			
BACKING	Woven Synthetic		
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 and 50% Relative Humidity				
FURNACE VOLTAGE	112 V	IRRADIANCE	2.5 watts/sq cm		
CHAMBER TEMPERATURE TEST MODE	95° F Flaming	CHAMBER PRESSURE	3" H <sub>2</sub> O		

<b>AVERAGE MAXIMUM DENSITY CORRECTE</b>	D (Dmc)	FLAMING	163
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			165
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	167.0	178.0	174.0
Time to Dm (minutes)	3.5	3.5	3.5
Clear Beam (Dc)	11.0	10.0	10.0
Corr. Max Density (Dmc)	156.0	168.0	164.0
Density at 1.5 minutes	9.0	10.0	10.0
Density at 4.0 minutes	160.0	170.0	164.0
Time to 90% Dm (minutes)	2.5	2.5	2.5
Specimen Weight (grams)	15.3	15.5	15.6

<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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