

TEST REPORT

CLIENT	AHF Products - PA
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TEST METHOD CONDUCTED	ASTM E662 Smoke Density (Flaming) Standard Test Method for Specific
	Optical Density of Smoke Generated by Solid Materials



	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	PFS43391 Auburn Walnut Chevron 4.25" x 17"
COLOR	Wood Tick
REFERENCE	ASC 2

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	24 Hours at 140° F		
CONDITIONING OF TEST SAMPLE	24 Hours at 70° F and 50% Relative Humidity		
TESTING CONDITION	As Received		
FURNACE VOLTAGE	118 V	IRRADIANCE	2.5 watts/sq cm
CHAMBER TEMPERATURE	95° F	CHAMBER PRESSURE	3" H ₂ O
TEST MODE	Flaming		

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) FLAMING			372
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			377
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	422.0	386.0	413.0
Time to Dm (minutes)	6.5	6.0	6.0
Clear Beam (Dc)	41.0	30.0	40.0
Corr. Max Density (Dmc)	388.0	356.0	373.0
Density at 1.5 minutes	193.0	222.0	201.0
Density at 4.0 minutes	388.0	367.0	377.0
Time to 90% Dm (minutes)	4.0	3.0	4.0
Specimen Weight (grams)	30.3	30.5	30.7

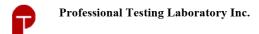
APPROVED BY:

TESTING
NULLPI LAB CODE 100297-0

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TESTING CONDITION	As Received			
FURNACE VOLTAGE	118 V	IRRADIANCE	2.5 watts/sq cm	
CHAMBER TEMPERATURE	95° F	CHAMBER PRESSURE	3" H ₂ O	
TEST MODE	Non-Flaming			

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES NON-FLAMING			385 171
Maximum Density (Dm)	400.0	368.0	397.0
Time to Dm (minutes)	14.5	12.5	12.5
Clear Beam (Dc)	2.0	2.0	5.0
Corr. Max Density (Dmc)	398.0	366.0	392.0
Density at 1.5 minutes	19.0	13.0	38.0
Density at 4.0 minutes	159.0	165.0	188.0
Time to 90% Dm (minutes)	9.0	8.5	8.0
Specimen Weight (grams)	29.6	29.8	29.9

APPROVED BY:

TESTING NUAPLAB CODE 100297-0

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