



## TEST REPORT

DATE: 03-29-2023

Page 1 of 1

TEST NUMBER: 0295820

CLIENT	AHF Products - PA
--------	-------------------

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 <sub>2</sub> 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: \_\_\_\_\_



This facility is accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 100297. This accreditation does not constitute an endorsement, certification, or approval by NIST or any agency of the United States Government for the product tested. This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from duly constituted authorities. This report applies only to those samples tested and is not necessarily indicative of apparently identical or similar products. This report, or the name of Professional Testing Laboratory, Inc. shall not be used under any circumstance in advertising to the general public.





## TEST REPORT

DATE: 03-29-2023

Page 1 of 1

TEST NUMBER: 0295820

CLIENT	AHF Products - PA
--------	-------------------

TEST METHOD CONDUCTED	ASTM E662 Smoke Density (Non-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 <sub>2</sub> O
TEST MODE	Non-Flaming		

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		NON-FLAMING		385
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES				171
	Specimen 1	Specimen 2	Specimen 3	
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: \_\_\_\_\_



This facility is accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 100297. This accreditation does not constitute an endorsement, certification, or approval by NIST or any agency of the United States Government for the product tested. This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from duly constituted authorities. This report applies only to those samples tested and is not necessarily indicative of apparently identical or similar products. This report, or the name of Professional Testing Laboratory, Inc. shall not be used under any circumstance in advertising to the general public.

