

### Professional Testing Laboratory Inc.

# **TEST REPORT**

DATE: 04-14-2023 Page 1 of 1

age 1 of 1 TEST NUMBER: 0296339

**CLIENT** Egetaepper a/s

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	Colortec Wool 1100 LT		
CONSTRUCTION	Cut Pile		

#### **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		d 50% Relative Humidity	
TESTING CONDITION FURNACE VOLTAGE	As Received	IRRADIANCE	2.5 watts/sa cm
CHAMBER TEMPERATURE	95° F	CHAMBER PRESSURE	3" H <sub>2</sub> O
TEST MODE	Non-Flaming	and the state of t	

AVERAGE MAXIMUM DENSITY CORRECTE	D (Dmc)	NON-FLAMING	311
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			73
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	315.0	330.0	309.0
Time to Dm (minutes)	17.5	17.0	17.5
Clear Beam (Dc)	7.0	6.0	9.0
Corr. Max Density (Dmc)	308.0	324.0	300.0
Density at 1.5 minutes	38.0	46.0	36.0
Density at 4.0 minutes	70.0	81.0	69.0
Time to 90% Dm (minutes)	12.5	12.0	12.5
Specimen Weight (grams)	11.4	11.4	11.4

APPROVED BY:

NVLAP

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CONDITIONS			
PREDRYING OF TEST SAMPLE CONDITIONING OF TEST SAMPLE TESTING CONDITION	24 Hours at 140° F 24 Hours at 70° F and 50% Relative Humidity As Received		
FURNACE VOLTAGE CHAMBER TEMPERATURE TEST MODE	118 V 95° F Flaming	IRRADIANCE CHAMBER PRESSURE	2,5 watts/sq cm 3" H₂O

<b>AVERAGE MAXIMUM DENSITY CORRECT</b>	ED (Dmc)	FLAMING	141
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			74
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	139.0	146.0	163.0
Time to Dm (minutes)	7.0	7.5	7.0
Clear Beam (Dc)	9.0	6.0	9.0
Corr. Max Density (Dmc)	130.0	140.0	154.0
Density at 1.5 minutes	2.0	1.0	3.0
Density at 4.0 minutes	67.0	74.0	80.0
Time to 90% Dm (minutes)	5.5	6.0	5.5
Specimen Weight (grams)	11.4	11.6	11.3

APPROVED BY:

qalvn

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