Professional Testing Laboratory Inc.

TEST REPORT

DATE: 04-14-2023 | **Page 1 of 1** | **TEST NUMBER:** 0296200

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 1800 LF
CONSTRUCTION	Cut Pile
BACKING	Attached Cushion

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_2O
TEST MODE	Non-Flaming		

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**NON-FLAMING**	320
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			90
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	324.0	306.0	342.0
Time to Dm (minutes)	17.5	16.5	17.0
Clear Beam (Dc)	4.0	3.0	5.0
Corr. Max Density (Dmc)	320.0	303.0	337.0
Density at 1.5 minutes	37.0	67.0	43.0
Density at 4.0 minutes	88.0	81.0	101.0
Time to 90% Dm (minutes)	13.0	12.5	13.0
Specimen Weight (grams)	15.7	16.8	16.7

APPROVED BY: Gary Asbury

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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" H_2O

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**FLAMING**	476
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			431
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	486.0	499.0	472.0
Time to Dm (minutes)	7.0	7.5	7.5
Clear Beam (Dc)	8.0	9.0	12.0
Corr. Max Density (Dmc)	478.0	490.0	460.0
Density at 1.5 minutes	83.0	91.0	84.0
Density at 4.0 minutes	431.0	442.0	420.0
Time to 90% Dm (minutes)	4.0	4.5	4.0
Specimen Weight (grams)	16.2	16.6	16.3

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