## **TEST REPORT**

DATE: 03-18-2016

**TEST NUMBER: 0226749** CLIENT Egetaepper a/s

ASTM E662 Smoke Density (Non-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	Una Temp ECT350	
CONSTRUCTION	Loop 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.

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

AVERAGE MAXIMUM DENSITY CORRECT	ED (Dmc)	NON-FLAMING	114
AVERAGE SPECIFIC OPTICAL DENSITY AT	4.0 MINUTES	19	
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	111.0	122.0	116.0
Time to Dm (minutes)	14.5	14.5	14.5
Clear Beam (Dc)	2.0	3.0	2.0
Corr. Max Density (Dmc)	109.0	119.0	114.0
Density at 1.5 minutes	1.0	2.0	2.0
Density at 4.0 minutes	17.0	22.0	18.0
Time to 90% Dm (minutes)	12.5	12.5	12.5
Specimen Weight (grams)	14.6	14.5	14.4

<sup>\*</sup> This sample PASSES the requirements of 450 or less.

**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 of 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.

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DATE: 03-18-2016

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CLIENT

Egetaepper a/s

TEST METHOD CONDUCTED

ASTM E662 Smoke Density (Flaming) Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials also referenced as NFPA 258



	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Una Temp ECT350
CONSTRUCTION	Loop 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.

	CON	DITIONS	
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

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) FLAMING		212	
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			212
	Specimen 1	Specimen 2	Specimen 3
Maximum Density (Dm)	239.0	220.0	231.0
Time to Dm (minutes)	2.5	2.5	2.5
Clear Beam (Dc)	19.0	16.0	20.0
Corr. Max Density (Dmc)	220.0	204.0	211.0
Density at 1.5 minutes	29.0	20.0	24.0
Density at 4.0 minutes	227.0	200.0	210.0
Time to 90% Dm (minutes)	1.5	1.5	1.5
Specimen Weight (grams)	14.4	14.2	14.3

<sup>\*</sup> This sample PASSES the requirements of 450 or less.

**APPROVED BY:** 

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