

TEST REPORT

DATE: 10-07-2014 TEST NUMBER: 0211715

CLIENT Egetaepper a/s

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



| | DESCRIPTION OF TEST SAMPLE |
|----------------|----------------------------|
| IDENTIFICATION | Epoca Knit ECT 350 |
| COLOR | Grey Brown |
| 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.

| CONDITIONS | | | | |
|--|---|--------------------------------|--|--|
| PREDRYING OF TEST SAMPLE CONDITIONING OF TEST SAMPLE TESTING CONDITION | 24 Hours at 140° F 24 Hours at 70° F an As Received | d 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 ₂ O | |

| AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) | | NON-FLAMING | 118 |
|---|------------|-------------|------------|
| AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES | | | 18 |
| | Specimen 1 | Specimen 2 | Specimen 3 |
| Maximum Density (Dm) | 107.0 | 111.0 | 142.0 |
| Time to Dm (minutes) | 18.5 | 19.0 | 19.0 |
| Clear Beam (Dc) | 2.0 | 1.0 | 2.0 |
| Corr. Max Density (Dmc) | 105.0 | 110.0 | 140.0 |
| Density at 1.5 minutes | . 0.0 | 1:0 | 1.0 |
| Density at 4.0 minutes | 18.0 | 15.0 | 21.0 |
| Time to 90% Dm (minutes) | 14.5 | 15.0 | 15.0 |
| Specimen Weight (grams) | 14.5 | 14.7 | 14.7 |

^{*} This sample PASSES the requirements of 450 or less.

APPROVED BY:

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NVIAP Lab Code 100297-0

714 Glenwood Place

Dalton, GA 30721

706-226-3283

Fax: 706-226-6787

protest@optilink.us



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



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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** IRRADIANCE 118 V 2.5 watts/sq cm **CHAMBER TEMPERATURE** 95° F **CHAMBER PRESSURE** 3" H₂O **TEST MODE** Flaming

| AVERAGE MAXIMUM DENSITY CORRECT | FLAMING | 213 | |
|---|------------|------------|------------|
| AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES | | | |
| | Specimen 1 | Specimen 2 | Specimen 3 |
| Maximum Density (Dm) | 246.0 | 221.0 | 230.0 |
| Time to Dm (minutes) | 3.0 | 3.0 | 3.0 |
| Clear Beam (Dc) | 20.0 | 19.0 | 20.0 |
| Corr. Max Density (Dmc) | 226.0 | 202.0 | 210.0 |
| Density at 1.5 minutes | 43.0 | 35.0 | 41.0 |
| Density at 4.0 minutes | 231.0 | 201.0 | 211.0 |
| Time to 90% Dm (minutes) | 2.5 | 2.5 | 2.5 |
| Specimen Weight (grams) | . 14.6 | 14.1 | 14.8 |

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