



TEST REPORT

DATE: 05-31-2023

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TEST NUMBER: 0297622

| | |
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| CLIENT | AHF Products |
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| 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 | Armstrong Medintone Vinyl Sheet (Homogeneous) |
|----------------|---|

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 ₂ O |
| TEST MODE | Flaming | | |

| AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) | FLAMING | | |
|---|------------|------------|------------|
| | | | 253 |
| AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES | | | 252 |
| | Specimen 1 | Specimen 2 | Specimen 3 |
| Maximum Density (Dm) | 330.0 | 241.0 | 257.0 |
| Time to Dm (minutes) | 4.5 | 5.0 | 5.0 |
| Clear Beam (Dc) | 34.0 | 17.0 | 19.0 |
| Corr. Max Density (Dmc) | 296.0 | 224.0 | 238.0 |
| Density at 1.5 minutes | 158.0 | 111.0 | 104.0 |
| Density at 4.0 minutes | 324.0 | 206.0 | 226.0 |
| Time to 90% Dm (minutes) | 3.5 | 4.0 | 4.0 |
| Specimen Weight (grams) | 17.6 | 17.7 | 17.7 |

APPROVED BY: *Amy Colbourne*



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| IDENTIFICATION | Armstrong Medintone Vinyl Sheet (Homogeneous) |

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| TESTING CONDITION | As Received | | |
| FURNACE VOLTAGE | 118 V | IRRADIANCE | 2.5 watts/sq cm |
| CHAMBER TEMPERATURE | 95° F | CHAMBER PRESSURE | 3" H ₂ O |
| TEST MODE | Non-Flaming | | |

| AVERAGE MAXIMUM DENSITY CORRECTED (Dmc) | NON-FLAMING | | |
|---|-------------|------------|------------|
| | 431 | | |
| AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES | 203 | | |
| | Specimen 1 | Specimen 2 | Specimen 3 |
| Maximum Density (Dm) | 424.0 | 441.0 | 439.0 |
| Time to Dm (minutes) | 11.0 | 12.0 | 11.5 |
| Clear Beam (Dc) | 3.0 | 4.0 | 3.0 |
| Corr. Max Density (Dmc) | 421.0 | 437.0 | 436.0 |
| Density at 1.5 minutes | 19.0 | 25.0 | 21.0 |
| Density at 4.0 minutes | 197.0 | 202.0 | 209.0 |
| Time to 90% Dm (minutes) | 8.0 | 8.0 | 7.5 |
| Specimen Weight (grams) | 17.4 | 17.8 | 17.9 |

APPROVED BY: *Gary Colburn*



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