



FLAMMABILITY TESTING OF EXTRUDED PVC FOAMED SHEETS

ATS JOB #: D164854

PURCHASE ORDER #: 9678

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Subject

Flammability Testing

Material

Extruded PVC Foamed Sheets

- PN: Komatex PVC-u Foamed Sheet (3mm, 6mm, 10mm, 12.7mm, 19mm) – White 662
- PN: Komacel PVC-u Foamed Sheet (19mm) – White 654

Objective and Background

Kommerling USA, Inc submitted extruded PVC foamed sheets to ATS, Inc. for flammability testing to determine the burn rate.

Test Procedure and Results

Testing was performed per FMVSS 302, *Laboratory Test Procedure For Flammability of Automotive Interior Materials*, and ASTM D 5132-11, *Standard Test Method for Horizontal Burning Rate of Polymeric Materials Used in Occupant Compartments of Motor Vehicles*, using an Atlas Horizontal Flame Chamber. The sample was placed horizontally in the clamping device of the chamber. A 38 mm flame was placed at the front edge of the test sample and allowed to burn for 15 seconds. At the end of 15 seconds, the gas source for the flame was turned off and the test sample was allowed to burn. Timing was started when the flame progressed 38 mm from the starting point. Timing was stopped when the flame reached 38 mm from the opposite end of the test specimen or the flame self extinguished. A burn rate was calculated from the following formula:

$$B = (60 \times D) / T$$

Where:

- B = Burn Rate in millimeter per minute
- D = Length in millimeter the flame travels
- T = Time in seconds for the flame to travel

Requirements

The burn rate shall be 100 mm/minute maximum.

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Results**Table 1: Flammability Test Results**

Material Identification	Quantity of Samples Tested	Burn Distance (mm)	Time (sec)	Burning Rate (mm/min)	Results
Komatex PVC-u 3mm (White 662)	5	0	0	DNI	Pass
Komatex PVC-u 6mm (White 662)	5	0	0	DNI	Pass
Komatex PVC-u 10mm (White 662)	5	0	0	DNI	Pass
Komatex PVC-u 12.7mm (White 662)	5	0	0	DNI	Pass
Komatex PVC-u 19mm (White 662)	5	0	0	DNI	Pass
Komacel PVC-u 19mm (White 654)	5	0	0	DNI	Pass

Note: DNI = Does Not Ignite, The material does not support combustion during or after ignition. (No calculation required.)