



Foam Flammability Certification

Ford Engineering Material Specification: WSS-M15P20-B2, 3.3.12

In compliance with ES-E97B-1011014-AA, Flammability - Interior Trim

Material Name Dow Automotive Systems Bio-Based MDI Polyurethane Foam
Test Facility: The Dow Chemical Company USA
Analytical Sciences Physical Testing Laboratory
Midland, MI 48667
LIMS ID: 74876
Test Date: September 14, 2011
Test Procedure: FMVSS-302

B. Alternate Sampling Plan

The following sampling plan, based on a consumers risk of one percent, may be used in lieu of the Burn Rate Acceptance Chart. The sampling plan applies as follows:

$$G = M + S(M - m)$$

Where: M is the maximum burn rate in the sample n
m is the minimum burn rate in the sample n
S is a factor based on 1% consumer risk

Sample Size (n)	S
4	1.62
5	.92
6	.62
8	.35
10	.24
12	.18

If $G < 100$ mm/min., the tested lot is accepted.

If $G \geq 100$ mm/min., the tested lot is rejected



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Each specimen was cut to thickness on a vertical band saw.

Skin remained on one side of each specimen (skin side down during testing).

Specimen #	Sample ID	Dimensions	Burn Length	Burn Time	Burn Rate	Burn Type
			(mm)	(s)	(mm/min)	
1	P415	4" x 7" x 0.50"	177.8	191	55.85	B
2	P415	4" x 7" x 0.50"	177.8	184	57.98	B
3	P415	4" x 7" x 0.50"	177.8	165	64.65	B
4	D472	4" x 6.5" x 0.50"	165.1	180	55.03	B
5	D472	4" x 6.5" x 0.50"	165.1	174	56.93	B
6	D472	4" x 6.5" x 0.50"	165.1	173	57.26	B
7	P473	4" x 7" x 0.50"	177.8	179	59.60	B
8	P473	4" x 7" x 0.50"	177.8	165	64.65	B
9	P473	4" x 7" x 0.50"	177.8	150	71.12	B
10	D258	4" x 6.5" x 0.50"	165.1	151	65.60	B
11	D258	4" x 6.5" x 0.50"	165.1	146	67.85	B
12	D258	4" x 6.5" x 0.50"	165.1	146	67.85	B

G Value (n=12) 74.02 mm/min
ACCEPTED

- (1) **DNI**: Did Not Ignite. The material does not support combustion during or after ignition.
- (2) **SE**: Self Extinguishing. The material ignited, but did not burn to the timing zone.
- (3) **SE/NBR**: Self Extinguishing with No Burn Rate.
The material stops burning before it has burned for 1minute where timing has started.
- (4) **SE/B**: Self Extinguishing with Burn Rate.
- (5) **B**: Burn Rate in mm/min.