

# 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: **SPECFLEX RENUE LE / SPECFLEX NE 187**  
*Bio-Based MDI Polyurethane Foam*

Supplier: **Dow Automotive Systems**

Authorizing Signature: **Kelly Kiszka**      Date: **23-Feb-2012**

Test Facility: **The Dow Chemical Company USA**  
**Analytical Sciences Physical Testing Laboratory**  
**Midland, MI 48667**

LIMS ID: **74876**

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

<u>Sample Size (n)</u>	<u>S</u>
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



## Foam Flammability Certification

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

<b>G Value</b> (n=12) <b>74.02</b> mm/min <b>ACCEPTED</b>
---

- (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.