

**SUMMARY OF TEST PROCEDURE (continued)**

Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted. Calculations ignore all flame front recessions and the Flame Spread Values (FSV) are determined by calculating the total area under the curve for each test sample. If the total area under the curve (AT) is less than or equal to 29.7 m·min,  $FSV = 1.85 \cdot AT$ ; if greater,  $FSV = 1640 / (59.4 - AT)$ .

The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively. The Smoke Developed Value (SDV) is determined by dividing the total area under the obscuration curve by that of red oak and multiplying by 100.

**TEST RESULTS**

SAMPLE: "Soft Tone Acoustic Panel"

Test	Approx. Time to Ignition (s)	Maximum Flame Front Distance (m)	Time to Maximum Flame Front (s)	Flame Spread Value (FSV)	Smoke Developed Value (SDV)
1	8	0.20	20	4	33
2	7	0.33	22	6	46
3	7	0.34	442	2	54
Average:				4	45
Rounded Average Flame Spread Rating (FSR):				5	-
Rounded Average Smoke Developed Classification (SDC):				-	45

**Observations of Burning Characteristics**

The specimens ignited approximately 7 to 8 seconds after exposure to the test flame. Melting, dripping, and flaming dripping behavior was observed. Material that dripped to the floor of the apparatus continued to produce smoke.

**Results Interpretation**

CAN/ULC-S102-10 contains no performance criteria of its own. The National Building Code of Canada (NBCC) or other jurisdictional documentation should be referenced to determine the FSR and/or SDC performance criteria that is applicable to the product under test for the intended application.



Francis Williams,  
Technician.



Ian Smith,  
Technical Manager.

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