

# PLASKOLITE

## FAR 25.853

### BACKGROUND

**FAR 25.853a** is a vertical Bunsen burner test designed by the FAA (Federal Aviation Administration) to determine the flammability of materials used in **airplane interiors** including both cabin and cargo compartments.

Test materials are subjected to a vertical flame according to a 60 second (i) or 12 second (ii) time duration to determine the fire resistance of the material.

Test results are reported as either passing or failing the method:

FAR 25.853 (a) Appendix F, Part I, (a), 1, (i): 60 sec Pass/Fail

FAR 25.853 (a) Appendix F, Part I, (a), 1, (ii): 12 sec Pass/Fail

**TEST METHOD:** The specimen is held in the vertical position inside an enclosure and a Bunsen burner flame (1.5") is applied from below for either 60 seconds or 12 seconds accordingly. After the flame application time has expired, the burner is removed and the material is observed. Flame time, ignition time, burn length and material drip flame time are documented. At least 3 test samples are verified.

Ignition Time	Elapsed time flame is applied to test sample
Flame Time	Time, in seconds, test sample continues to flame after burner flame is removed
Drip Flame Time	Time, in seconds, any flaming material continues to flame after falling from test sample
Burn Length	Distance from initial test sample edge to farthest damage of sample

Test method requirements for passing FAR 25.853a

Test	Flame Time (sec)	Avg Drip Extinguishing Time (sec)	Avg Burn Length
(i) 60 sec	<15 sec	<3 sec	<6" (152 mm)
(ii) 12 sec	<15 sec	<5 sec	<8" (203 mm)

TUFFAK® FI and LF are flame inhibiting polycarbonate sheet that conforms to FAR 25.853 (a), 1, (i) and (a), 1, (ii).

<b>Makrolon® FI</b>	<b>FAR 25.853</b>	<b>PASS</b>
0.060" - 0.0125"	Part 1, a (i) - 60 sec	PASS
0.060" - 0.0125"	Part 1, a (ii) - 12 sec	PASS
<b>Makrolon® LF</b>	<b>FAR 25.853</b>	<b>PASS</b>
0.080" - 0.250"	Part 1, a (i) - 60 sec	PASS
0.080" - 0.250"	Part 1, a (ii) - 12 sec	PASS

### DISCLAIMER:

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.