



FLAMMABILITY RATING

FOR PLASTICS

The most commonly used flammability rating for plastics is *UL 94, the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances*, which is published by Underwriters Laboratories (UL).

Testing pursuant to UL 94 measures the resin's tendency either to extinguish or to spread the flame once the specimen has been ignited.

Other than those related to low-density foam and thin films, there are six classifications for plastics, ranging from the least flame-retardant (lowest rating) to the most flame-retardant (highest rating), as shown here.

HB

Slow burning on a horizontal specimen; Burning rate < 76 mm/min for thickness < 3 mm or burning stops before 100 mm

V-2

Burning stops within 30 seconds on a vertical specimen; drips of flaming particles are allowed

V-1

Burning stops within 30 seconds on a vertical specimen; drips of particles allowed provided they are not inflamed

V-0

Burning stops within 10 seconds on a vertical specimen; drips of particles allowed provided they are not inflamed

5VB

Burning stops within 60 seconds on a vertical specimen; no drips allowed; plaque specimens may develop a hole

5VA

Burning stops within 60 seconds on a vertical specimen; no drips allowed; plaque specimens may not develop a hole