

UL 94

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA.^[1] The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant),

Classifications

- **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 as long as they are not inflamed.
- **V-0**: burning stops within 10 seconds on a vertical specimen; drips of particles allowed as long as 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.

Tests