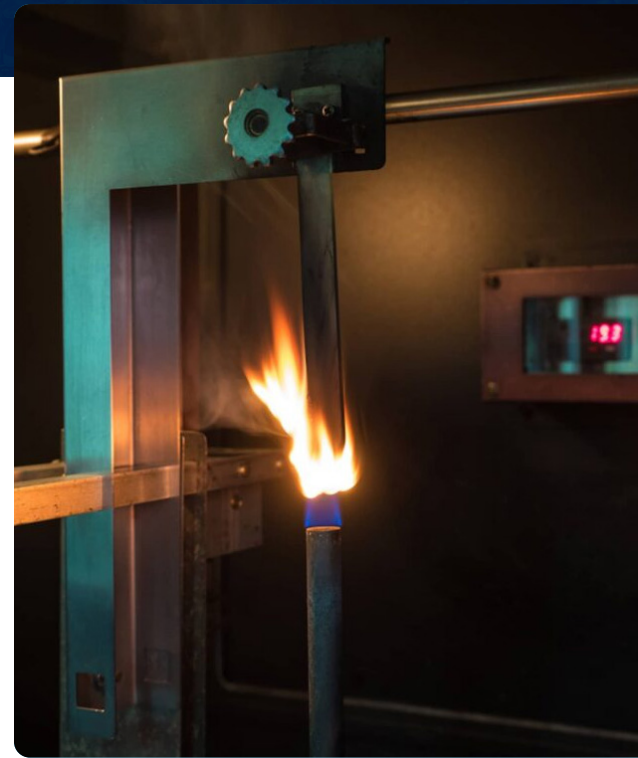## UL94

Understanding UL94 Flame Ratings

The UL94 flammability test serves as a preliminary indication of a plastic material's acceptability for use as part of a device or appliance.

The test utilizes standard test specimens to determine the flammability properties of plastic materials. These tests are conducted on the plastic material under specified conditions. They are intended to provide information comparing the relative burning characteristics of different materials by assessing any change in burning characteristics prior to or during actual use. Note that this rating is not intended to reflect the hazards of a material under actual fire conditions.

5VA Surface Burn

Burning stops within 60 seconds after five applications of five seconds of a flame to a test bar. Test specimens may not have a burn-through. This is the highest, most flame-retardant UL94 rating.

5VB Surface Burn

Burning stops within 60 seconds after five applications of five seconds each of a flame to a test bar. Test specimens may have a burn-through.

V-0 Vertical Burn

Burning stops within ten seconds after two applications of ten seconds each of a flame to a test bar. No flaming drips are allowed.

V-1 Vertical Burn

Burning stops within 60 seconds after two applications of ten seconds each of a flame to a test bar. No flaming drips are allowed.

V-2 Vertical Burn

Burning stops within 60 seconds after two applications of ten seconds each of a flame to a test bar. Flaming drips are allowed.

HB Horizontal Burn

Slow horizontal burning with a burning rate of less than 3" per minute or stops burning before the 5" mark. HB-rated materials are considered "self-extinguishing."