

## TEMPERATURE INDEX (ISO 4589-3)

TWO VARIANTS ON LOI – DETERMINATION OF THE TEMPERATURE AT WHICH DOWNWARD FLAME SPREAD OCCURS, OR AN OXYGEN INDEX AT ELEVATED TEMPERATURES.

Temperature Index (TI) is the temperature at which a small specimen will only just burn downwards in a candle-like manner in air (21% oxygen). The test was developed from the limiting oxygen index test. The apparatus is essentially similar to that of the limiting oxygen index test but the vertical specimen tube and the incoming combustion gas is heated. The aim is to test the flammability of the sample with a small pilot flame to find the minimum temperature required to just sustain combustion of the sample in air.



An alternative technique is to determine the limiting oxygen index using the standard method at different temperatures. Systems are also used where the temperature of the jacket can be increased to determine the temperature at fixed oxygen concentration.