

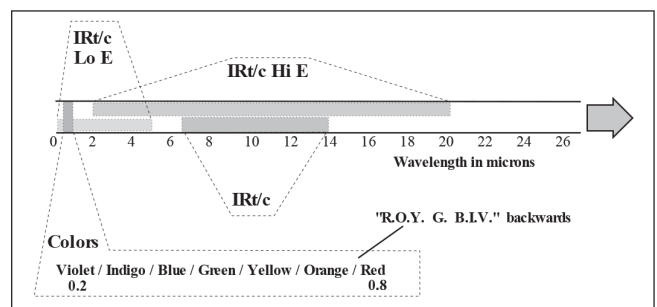
WHY COLOR DOES NOT AFFECT READINGS

In many IRt/c installations, such as paint curing, web drying, printing, etc., the temperature control system must be able to accurately measure materials with a variety of colors. Ideally the same calibration set-up would be used for all colors, rather than having to recalibrate each time a new color is run.

Because the IRt/c measures the radiated wavelengths that indicate temperature, which are generally ten times longer than the wavelengths that indicate color, color changes do not influence temperature readings. Even for situations in which the target temperature is sufficiently high such that appreciable energy is radiated at visible wavelengths, *all IRt/c models except Lo E completely filter out the visible wavelengths.*

Except to the extent that color might indicate a change in surface texture, and thereby affect emissivity, there will be no effect of color on the reading.

The energy contained in the radiation we see as color has nothing to do with the temperature (except if the target is hot enough to be incandescent), and is simply a function of which particular wavelengths are reflected to our eyes.



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