

#22: CONTROLLING VACUUM FORMING AND THERMOFORMING PROCESSES

For forming plastics, radiant heat with an IRt/c is an excellent combination of heating method and control. They work extraordinarily well together, since both the heating and measuring occur right at the surface, where the plastic is located. The IRt/c reading is unaffected by reflections from the heater, since the spectral response of the 6 to 14 micron IRt/c lens filters out the shorter wavelengths of the radiant heater energy.

The IRt/c may be mounted in between ceramic heaters, or in the shroud or reflector of the radiant

heater, such that it can see in between the elements. Select any of the IRt/c models, depending on the field-of-view required to see past the elements to the painted surface. Care should be taken in mounting the IRt/c in such a way as to keep its temperature below 93°C (200°F) and to keep the lens clean. The IRt/c.3x is the preferred model for this application because of its small physical size and builtin air purge. It can be used in temperatures up to 121°C (250°F) when the air purge system is used. For still narrower fields of view, the IRt/c.5 and IRt/c.10 with 5:1 and 10:1 FOV respectively are very popular.

