

# ***Important* — Read BEFORE Operating 9601, 9602 or 9603 INSTATHERM® OIL BATHS**

Oil baths are made from heavy wall glass and are, therefore, subject to some restrictions in use.

Generally speaking, thermal shock should be limited to 150°C from outer glass surface to inner glass surface, and since the outer surface temperature is essentially that of the conductive heating film, the liquid temperature will be the determining factor in the rate of heating.

At a liquid heating rate of 5-6° C/min. in a stirred bath, the external temperature will be approximately 100° C higher than that of the inner surface before equilibrium is attained. When the contents of the bath are cold, start with power controller at "0", and then do not exceed 1/2 rated value (volts or amps) of the bath for the first two minutes, because the heating film reaches 70% of its maximum temperature in a matter of seconds. **NEVER OPERATE DRY: ALWAYS HAVE HEAT EXCHANGE MEDIUM IN BATH BEFORE APPLYING CURRENT.**

In order to preserve the integrity of the insulation, heating rates in excess of 7° C/min should be avoided. It is quite possible to attain surface temperatures in excess of 500° C with Instatherm, so maximum values (volts or amps) of power are indicated on the bath to prevent this.

Baths are designed to operate at 250° C and for use with Proportional Temperature Controllers to get precise, accurate and safe heating since the output voltage is automatically limited. May also be controlled manually with 12087-10 Voltage Controller or any other variable voltage controller with 10 amp. capacity. However, care must be taken not to exceed the maximum voltage rating of your individual bath.

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