

### **SUGGESTED HEATING PROCEDURES FOR QUIKTURN CASTABLES AND GUNNING MIXES**

1. Quikturn products must not be exposed to freezing temperatures during installation, the setting period, or prior to heatup. The heating process can begin immediately after the initial set; no curing is required.
2. Increase temperature at the following continuous rate:
  - For lining thicknesses **up to 9 inches**, heat at a **rate of 100°F per hour** to operating temperature
  - For lining thicknesses **between 9 to 12 inches**, heat at a **rate of 75°F per hour** to operating temperature
  - For lining thicknesses **greater than 12 inches**, heat at a **rate of 50°F per hour** to operating temperature.

Temperature hold periods are not required or recommended during the heatup period.

These should be considered the ideal heating rates for both single and dual component linings.

Circulation and exhaust of the preheating air is required during heatup to remove steam that has evolved from the lining. If permitted, weep holes are suggested.
3. For a dual component lining containing an insulating castable or gun mix as a backup, the insulating monolith should take its final set before the Quikturn hot face lining is placed. If permitted, weep holes are suggested for dual component linings.
4. If the vessel / furnace will be cooled and will not be going into operation, or will be holding molten metal immediately after heatup, the operating temperature should be held for a period of one hour per inch of total lining thickness, or until steam is no longer visible, prior to putting the vessel / furnace into operation.
5. Temperatures should be monitored at the refractory surface at several locations in the unit.
6. The heatup of refractory linings entails more than just following a heating schedule. Issues, such as burner size and location, hot air exhaust location, air volume and velocity, etc., should be considered.

**IMPORTANT NOTE:** If, for any reason, the heating schedule is interrupted by a loss of heat and/or power into the unit, Resco Products recommends that the heating schedule be initiated from the beginning once power and/or heat is restored. At the end user or contractor's direction, they may elect to attempt to restart the cycle and "stabilize" the lining temperature at the point of interruption. After the lining has been stabilized, the heat up cycle may be resumed as scheduled from that point on. Resco assumes no liability for this procedure, as it is difficult to determine that point at which the entire lining is stable to prevent the possibility of a steam spall.



## ***Technical Information***

---

This schedule is suggested for situations where proper heating and air circulation are available. Consult your Resco Products, Inc representative if additional information is required, visit the RESCO website at ([www.rescoproducts.com](http://www.rescoproducts.com)), or call 888.283.5505.