



**Plibrico Company, LLC**

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# Plibrico Heat Up Schedule

## Schedule PS-SB Plicast Si-Bond Castables

Heat up rates and hold times may vary with shape configuration and size and furnace loads. For field installation bake out, please refer to Schedule E.

After the castable has cured set a minimum 16-24 hrs in the mold, it is recommended that after form removal the shape be allowed to air dry for at least 24 hrs before beginning the heat up.

When the part is not heated to full operating temperature, the maximum hold temperature should be no lower than 1000°F (538°C) to ensure sufficient strength for safe handling.

To achieve the strength required for service conditions, however, the part should be heated to a minimum of 1500°F (815°C), with 1800°F (982°C) preferred for optimal performance.

### CAUTION / WARNING

This schedule assumes that heating for bake out is regulated and is applied in a controlled, uniform manner. Note that the target control temperatures are to be measured by thermocouple placement on or within 1/2 in. (12 mm) of the hot face surface of the refractory and must be monitored at multiple locations/areas on the refractory within the furnace/vessel. Care should be taken to not exceed the heating rates or cause excessive thermal gradients (>50°F (28°C)) throughout the furnace during bake out. The refractory during bake out must not be exposed to flame impingement or spot (radiant) heating and there should be sufficient combustion air circulation within the furnace.

If not using gas or hot air for bake out, you must extend listed hold times. Contact Plibrico's Technical Team to confirm details.

If the bake out is interrupted due to burner/power failure, care should be taken not to shock the refractory. If/when combustion is restored, the temperature in the furnace should be stabilized at the current temperature before proceeding. Heating should proceed from the point of the schedule corresponding to the current furnace temperature, not the temperature when interruption occurred. Failure to take any of these parameters into account may result in shape damage or explosion.

For questions, please consult the Plibrico Technical or Engineering department.

### Schedule PS-SB

- All Ramps  
@25°F (14°C) / hr (max.)
- Hold @  
250°F (120°C)  
350°F (177°C)  
Max. temperature
- Hold Times (min)  
Cross Section  

Thickness	Hold
9" (225mm)	8 hr
12" (300mm)	12 hr
18" (460mm)	14 hr
- Cool Down  
@ 50°F (28°C) / hr (max.)

