

**Recommended Firing Schedules for Castable Refractory with 62% Alumina Content
used by Fives North American Combustion, Inc.**

A moist cure, consisting of a 24 hour hold of the castable refractory between 60 F and 90 F, is recommended prior to any approved heating schedule. Any castable structure received from Fives North American Combustion, Inc. will have undergone this moist cure prior to shipment.

For overall castable refractory thickness up to 9"			For overall castable refractory thickness greater than 9"		
Hold	8 hours	at 200-400 F	Hold	8 hours	at 200-400 F
Raise	at 75 F/hr	to operating temperature	Raise	at 50 F/hr	to operating temperature
		or			or
Hold	8 hours	at 200-400 F	Hold	16 hours	at 200-400 F
Raise	at 100 F/hr	to 1200 F	Raise	at 100 F/hr	to 1200 F
Hold	8 hours	at 1200 F	Hold	8 hours	at 1200 F
Raise	at 100 F/hr	to 2000 F	Raise	at 100 F/hr	to 2000 F
Hold	8 hours	at 2000 F	Hold	8 hours	at 2000 F
Raise	150 F/hr	to operating temperature	Raise	100 F/hr	to operating temperature

Temperatures for the above schedule represent refractory surface temperatures. Thermocouples used for monitoring surface temperature should be suited for these elevated temperatures. Additional protection for the probe may consist of a fiber blanket wrap or other methods to insulate the thermocouple from the radiant heat of the burner. The observation port on the burner may be used as a location for insertion of a thermocouple probe. Special care should be employed in completely sealing the ports on a positive pressure system prior to any firing in order to prevent hot gases from escaping.

- NOTES: 1 - Prior to installation, store castable refractory in a cool, dry location.**
- 2 - The above schedules are designed to maximize service life of refractories. Where time does not permit adherence to these procedures, greater stresses will be generated and may reduce the service life through increased crack formation.**
- 3 - A multi-component lining often requires a slower heat-up rate, especially when insulating castable is behind a dense castable and the furnace shell is vapor tight. When in doubt, contact Fives North American Combustion, Inc.**

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.

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