



## Mortars



### Features

- Matched for use with each Thermal Ceramics firebrick and insulating firebrick
- Both heat setting and air setting grades are available
- Temperature use limits range from 2850°F to 3200°F

### Description

Thermal Ceramics refractory mortars were developed to match Thermal Ceramics dense and insulating firebricks in various thermal, chemical and physical service conditions. Available in wet and dry grades, Thermal Ceramics mortars will provide the convenience you want with the performance you need for practically every high temperature refractory application. K-Bond Mortar has an extra smooth, creamy consistency plus excellent tackiness to brick surfaces.

## Mortars

Physical Properties	High-Temp	Smoothset	Smoothset	Air-Set	Air-Set
	heat setting	wet,	dry,	wet,	dry,
	air setting	air-setting	air setting	air-setting	air setting
Maximum service temperature, °F	3000	2850	2900	3000	3000
Type of brick	IFB	IFB	IFB	IFB/Firebrick	IFB/Firebrick
Quantities required, lb/1000 brick <sup>1</sup>	220-250	220-270	160-180	360-400	275-300
Lb required to brush coat 100 sq ft	26	22	20	22	20
Recommended water, %					
trowel	26	-	29	-	31
dip	44	-	50	-	52
Pounds per bag	50	55 (drum)	50	55 (drum)	50

### Chemical analysis, %, weight basis after firing

Alumina, Al <sub>2</sub> O <sub>3</sub>	45	36	38	41	40
Silica, SiO <sub>2</sub>	50	57	58	53	53
Ferric oxide, Fe <sub>2</sub> O <sub>3</sub>	1.0	0.9	1.0	1.4	1.4
Titanium oxide, TiO <sub>2</sub>	2.2	1.7	1.9	2	1.9
Calcium oxide, CaO	0.2	0.2	0.2	0.2	0.2
Magnesium oxide, MgO	0.1	0.1	0.1	0.1	0.1
Alkalies as, Na <sub>2</sub> O	0.6	4	2.8	2.1	3.7
Boron oxide, B <sub>2</sub> O <sub>3</sub>	0.7	-	-	-	-

Physical Properties	K-Bond	K-Bond	Mul-Set F	Mul-Set F	Coastal 90	Coastal 90 AS
	wet	dry,	wet,	dry,	wet,	dry,
	air setting	air-setting	air setting	air-setting	air setting	air-setting
Maximum service temperature, °F	3000	3000	3200	3200	3250	3300
Type of brick	IFB/Firebrick	IFB/Firebrick	IFB	IFB	Firebrick	Firebrick
Quantities required, lb/1000 brick <sup>1</sup>	300-360	220-280	300-350	180-300	200-300	450-550
Lb required to brush coat 100 sq ft	22	20	22	20	-	-
Average recommended water, %						
trowel	-	20	-	22	-	-
dip	-	33	-	37	-	-
Pounds per bag	55 (drum)	50	55 (drum)	50	-	-

### Chemical analysis, %, weight basis after firing

Alumina, Al <sub>2</sub> O <sub>3</sub>	47	47	66	66	86.89	88.96
Silica, SiO <sub>2</sub>	47	48	28	24	7.08	8.39
Ferric oxide, Fe <sub>2</sub> O <sub>3</sub>	0.9	0.9	1.2	1.2	0.32	0.14
Titanium oxide, TiO <sub>2</sub>	0.7	1.1	2.2	2.2	0.26	0.05
Calcium oxide, CaO	0.1	0.5	0.1	0.1	0.02	0.02
Magnesium oxide, MgO	0.1	0.4	0.1	0.1	0.11	0.04
Alkalies as, Na <sub>2</sub> O	4.3	2.1	2.2	3.2	0.48	2.35
Boron oxide, B <sub>2</sub> O <sub>3</sub>					-	-

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.