



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.

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

	High-Temp (dry) (heat setting)	Mul-Set F (wet) (air setting)	Mul-Set F (dry) (air setting)	K-Bond (wet) (air setting)	K-Bond (dry) (air setting)	Air-Set (wet) (air setting)	Air-Set (dry) (air setting)	Smoothset (wet) (air setting)	Smoothset (dry) (air setting)	Coastal 90 (wet) (air setting)
Physical Properties										
Maximum service temperature, °F(°C)	3000 (1648)	3200 (1760)	3200 (1760)	3000 (1648)	3000 (1648)	3000 (1648)	3000 (1648)	2850 (1565)	2900 (1593)	3250 (1788)
Type of brick	IFB ² (K-20,23,25,26) (JM-26,28,30)	IFB (JM-28,30,32)	IFB (JM-28,30,32)	IFB (K-20,23,25,26) (JM-26,28,30)	IFB (K-20,23,25,26) (JM-26,28,30)	IFB (K-26) (JM-26,28,30)	IFB (K-26) (JM-26,28,30)	IFB (K-20,23,25)	IFB (K-20,23,25)	High Alumina Firebrick
Quantities of required	lbs/1000 brick ¹ 220-250 (100-114) 240-300 (109-136) 240-300 (109-136)	(kg/1000 brick) 300-350 (136-259) 300-350 (136-159)	180-300 (82-136) 180-300 (82-136)	300-360 (136-164) 320-380 (145-173) 320-380 (145-173)	220-280 (100-127) 240-300 (109-136) 240-300 (109-136)	360-400 (164-182) 360-400 (164-182)	275-300 (125-136) 275-300 (125-136)	220-270 (100-123) 260-280 (118-127)	160-180 (73-82) 190-240 (86-109)	200-300 (90-136)
Lbs (kg) required to brush coat 100 sq ft (9 sq m)	20 (9.09)	22 (10)	20 (9.09)	22 (10)	20 (9.09)	22 (10)	20 (9.09)	22 (10)	20 (9.09)	-
Average recommended water, %										
trowel	26	-	22	-	20	-	31	-	29	-
dip	44	-	33	-	37	-	52	-	50	-
Pounds per bag/drum (kg)	50 (22.7)	55 (25)	50 (22.7)	55 (25)	50 (22.7)	55 (25)	50 (22.7)	55 (25)	50 (22.7)	-
Chemical Analysis (% fired basis)										
Alumina, Al ₂ O ₃	45	66	66	47	47	41	40	36	38	86.89
Silica, SiO ₂	50	28	27	47	48	53	53	57	56	7.08
Ferric oxide, Fe ₂ O ₃	1	1.2	1.2	0.9	0.9	1.4	1.4	0.9	1	0.32
Titanium oxide, TiO ₂	2.2	2.2	2.2	0.7	1.1	2	1.9	1.7	1.9	0.26
Calcium oxide, CaO	0.2	0.1	0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.02
Magnesium oxide, MgO	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.11
Alkalies as, Na ₂ O	0.6	2.2	3.2	4.3	2.1	2.1	3.7	4	2.8	0.48
Boron oxide, B ₂ O ₃	0.7	-	-	-	-	-	-	-	-	-

¹ Amount of mortar used for layering either insulating firebrick or firebrick varies according to masonry practice. A range of quantities is shown for the rows of brick types listed above.

² IFB=Insulating firebrick

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.

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