

ISOLITE®

Isolite range of insulating firebricks (IFB) are well known for its low thermal conductivity, relatively high cold crushing strength, low reheat shrinkage and small dimensional tolerance.

Isolite IFB are used for hot face lining and backup insulation in most kilns or furnaces.

In selecting Isolite IFB for hot face lining, classified temperature should be 100°C~300°C higher than hot face temperature.

In selecting Isolite IFB for backup insulation, classified temperature should be 50°C~200°C higher than interface temperature.

Standard Square (Straight)			Side Arch (Arch)				End Arch (Wedge)				Header (Key)			
			Y0	Y1	Y2	Y3	T0	T1	T2	T3	B0	B1	B2	B3
Length (mm)	230		230	230	230	230	230	230	230	230	230	230	230	230
Width (mm)	114		114	114	114	114	114	114	114	114	a	114	114	114
Width (mm)											b	108	105	85
Thickness (mm)	65	a	65	65	65	65	a	65	65	65		65	65	65
Thickness (mm)		b	61	59	50	32	b	60	55	45				

Products Properties

Note: LBK series are COVERED ASTM specifications

Grade	B4	B5	B6	B7	C1	C2	LBK-20	LBK-20HS	LBK-23	LBK-23HS	LBK-26	LBK-26HS	LHB	LBK-28	LBK-30	LBK-3000	LAP-165	B1	B2	ISO-COR	BAL-99	BAL-99M
Classified Temperature	1200°C	1300°C	1400°C	1500°C	1300°C	1400°C	1200°C (2192°F)	1200°C (2192°F)	1300°C (2372°F)	1300°C (2372°F)	1430°C (2600°F)	1430°C (2600°F)	1450°C (2642°F)	1540°C (2800°F)	1649°C (3000°F)	1600°C (2912°F)	1650°C (3000°F)	900°C	1000°C	1800°C	1800°C	1800°C
Bulk Density	0.78	0.78	0.86	0.75	1.06	1.14	0.48	0.67	0.52	0.68	0.59	0.70	1.15	0.70	0.80	0.80	0.80	0.65	0.65	1.28	1.56	1.58
Thermal Conductivity (W / m·K) at 350 °C by JIS R 2616	0.24	0.24	0.27	0.30	0.33	0.39	0.16	0.24	0.17	0.25	0.22	0.27	0.55	0.25	0.34	0.32	0.35	0.17	0.20	0.70	1.22	1.45
At 400 °C by ASTM C 182-88	0.25	0.25	0.28	0.31	0.34	0.40	0.17	0.25	0.18	0.26	0.23	0.28	0.56	0.26	0.35	0.33	0.36	0.17	0.20	0.70	1.18	1.41
At 600 °C by ASTM C 182-88	0.28	0.28	0.31	0.34	0.37	0.43	0.20	0.29	0.21	0.30	0.27	0.33	0.60	0.29	0.39	0.38	0.41	0.18	0.22	0.71	1.06	1.24
At 800 °C by ASTM C 182-88	0.30	0.31	0.35	0.38	0.40	0.48	0.25	0.33	0.26	0.34	0.32	0.38	0.65	0.33	0.44	0.44	0.47		0.24	0.74	1.00	1.18
At 1000 °C by ASTM C 182-88			0.39	0.43		0.53					0.37	0.43	0.71	0.38	0.49	0.50	0.52			0.76	0.94	1.12
At 1200 °C by ASTM C 182-88																				0.77	0.94	1.12
Cold Crushing Strength (MPa) (by JIS R 2615)	1.5	1.7	2.4	4.0	4.4	5.7	1.4	2.6	2.0	2.7	2.9	3.1	11.0	3.2	3.0	3.5	4.0	3.0	3.2	6.4	12.0	27.0
Modules Of Rupture (MPa) (by JIS R 2619)							1.0		1.2		1.4			1.7	1.3	1.7	2.0			3.2	5.5	9.6
Reheat Shrinkage (%)																						
at () °C X 24 hrs by ASTM C210							0.00 (1065)		0.00 (1230)		0.60 (1400)			1.10 (1510)	1.30 (1620)	1.10 (1620)				0.35 (1730)		
at () °C X 8 hrs by JIS R 2613-1985							0.03 (1200)	0.03 (1200)	0.20 (1300)	0.20 (1300)	0.30 (1400)	0.60 (1400)	0.30 (1450)	0.31 (1500)	0.20 (1550)	0.21 (1600)	0.18 (1650)			0.15 (1700)	0.27 (1700)	0.18 (1700)
at () °C X 12 hrs by JIS R 2613-1998	0.28 (1200)	0.25 (1300)	1.03 (1400)	0.86 (1500)	0.25 (1300)	0.28 (1400)												0.35 (900)	0.80 (1000)			
Chemical Composition (%)																						
Al ₂ O ₃							41	41	41	41	63	46	67	68	69	72	73	8.9	8.6	86	99.2	99.3
SiO ₂							52	52	52	52	34	47	31	30	30	26	25	82	83	13	0.4	0.4
Fe ₂ O ₃							1.2	1.2	1.2	1.2	0.7	1.1	0.6	0.5	0.5	0.6	0.5	3.8	3.7	0.3	0.1	0.1
Recommended ISOLITE MORTAR	SAS-D		HAS-D		SAS-D	HAS-D				SAS-D				HAS-D			ASD F-30			ASD N-10	MAS-D	MAS-DS
Country of Origin	Above products are manufactured in Malaysia																	Above products are manufactured in Japan				

Note: Data are average results of standard tests which are subject to variation and should not be used as specification. Our specialists are trained to assist you in material selection, engineering design and installation technique.