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Refractories for Glass Industry

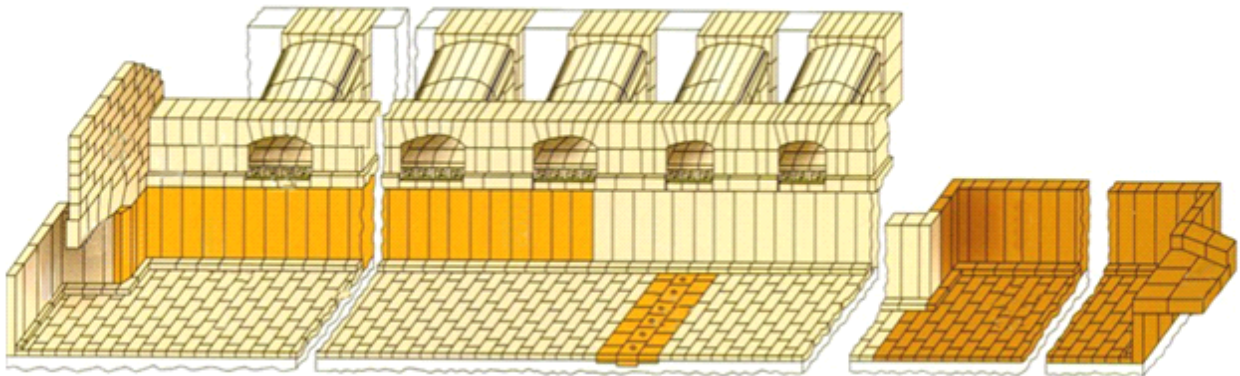
Products applications



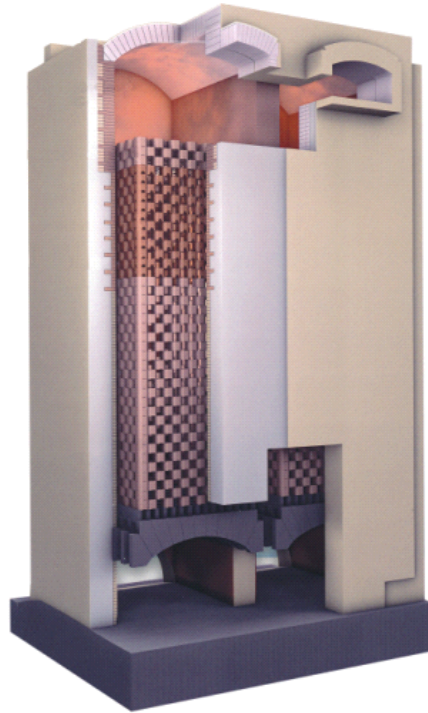
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Float Glass Furnace



Materials for Glass Industry	Code	Physical Specification				Chemical Analysis			
		B.D. (g/cm ³)	A.P. (%)	C.C.S. (Mpa)	R.U.L (T0.6)(°C)	Al ₂ O ₃ (%)	SiO ₂ (%)	Fe ₂ O ₃ (%)	ZrO ₂ (%)
Fused Cast Brick	AZS-33	≥3.75	≤1.2	≥300		≥50	≤15.5		≥32.5
	AZS-36	≥3.85	≤1	≥300		≥49	≤13		≥35.5
	AZS-41	≥4	≤1.2	≥300		≥45	≤13		≥40.5
	α-β Al ₂ O ₃	≥3.4	≤2	≥200		≥94	≤1.8		
	β Al ₂ O ₃	≥3.05	≤10	≥30		≥93	≤0.5		
Silicon Brick	G-94		≤24	≥30	≥1630		≥94	≤1.5	
	G-95A		≤24	≥30	≥1660		≥95	≤1.2	
	G-95B		≤24	≥30	≥1650		≥95	≤1.2	
	G-96A		≤24	≥30	≥1680		≥96	≤0.8	
	G-96B		≤24	≥30	≥1670		≥96	≤1	
Sillimanite Brick	MS-60P	≥2.45	≤18	≥70	≥1580	≥60	≤37	≤1.2	
	MS-60C	≥2.4	≤18	≥50	≥1520	≥60	≤36	≤1.2	
Low Porosity Fireclay Bricks	DN-10	≥2.4	≤10	≥70	≥1500	≥45		≤1	
	DN-12	≥2.35	≤12	≥65	≥1470	≥45		≤1.2	
	DN-15	≥2.3	≤15	≥60	≥1450	≥42		≤1.65	
	DN-18	≥2.25	≤18	≥48	≥1400	≥42		≤1.8	
Zircon Brick	ZMS-18	≥3	≤18	≥85	≥1650	≥65	≤16	≤0.5	≥18
	ZMS-333	≥2.8	≤22		≥1580	≥36	≤30	≤0.3	≥26
	ZS-65	≥3.6	≤20	≥100	≥1650		≤34	≤0.3	≥64.5



Materials for Glass Industry	Code	Physical Specification				Chemical Analysis			
		B.D. (g/cm ³)	A.P. (%)	C.C.S. (Mpa)	R.U.L (T0.6)(°C)	MgO (%)	CaO (%)	SiO ₂ (%)	Al ₂ O ₃ (%)
Magnesite Brick	M-90		≤20	≥50	≥1500	≥90	≤3		
	M-91		≤18	≤55	≥1520	≥91	≤3		
	M-92		≤18	≤55	≥1540	≥92	≤2.5		
	M-93		≤18	≥60	≥1620	≥93	≤2	≤3.5	
	M-95		≤17	≥60	≥1650	≥95	≤2	≤2	
	M-96		≤18	≥60	≥1650	≥96	≤1.8	≤2.5	
	M-97		≤16	≥60	≥1700	≥97		≤1.2	
	M-98		≤16	≥60	≥1700	≥98		≤1	
Magnesite-Alumina Brick	MA-80	≥2.85	≤18	≥40	≥1600	≥80			5-10
	MA-85	≥2.85	≤18	≥40	≥1650	≥85			5-8
	MA-88	≥2.9	≤18	≥40	≥1700	≥88			5-8
Magnesite-Alumina Spinel Brick	MAS-85A	≥2.95	≤18	≥50	≥1700	≥85			≥8
	MAS-85B	≥2.9	≤18	≥45	≥1700	≥82			≥8
	MAS-93A	≥2.95	≤18	≥45	≥1700	≥93			≥5
	MAS-93B	≥2.9	≤18	≥40	≥1700	≥90			≥5
	DMC-18		≤18	≥40	≥1600	≥58	≤1.5		≥18
	RMC-26		≤16	≥45	≥1750	≥50	≤1.2		≥26

Materials for Glass Industry	Code	Physical Specification			Chemical Analysis			
		A.P. (%)	C.C.S. (Mpa)	R.U.L (T0.6)(°C)	MgO (%)	SiO ₂ (%)	ZrO ₂ (%)	Cr ₂ O ₃ (%)
Magnesite-Zircon Bricks	MZ-12A	≤15	≥60	≥1680	≥75	≤8	≥12	
	MZ-12B	≤16	≥50	≥1640	≥72	≤9	≥10	
	MZ-12C	≤17	≥45	≥1620	≥72	≤9	≥10	
Magnesite-Chrome Brick	MC-8	≤20	≥35	≥1620	≥65			≥8
	MC-12	≤20	≥35	≥1620	≥60			≥12
	MC-16	≤20	≥35	≥1620	≥50			≥16
Direct-Bonded Magnesite-Chrome Brick	DMC-4	≤18	≥40	≥1600	≥80	≤2		≥4
	DMC-6	≤18	≥40	≥1600	≥75	≤2		≥6
	DMC-8	≤18	≥40	≥1600	≥74	≤1.5		≥8
	DMC-12	≤18	≥40	≥1600	≥66	≤1.5		≥12
	DMC-16	≤18	≥40	≥1600	≥60	≤1.5		≥16
	DMC-18	≤18	≥40	≥1600	≥58	≤1.5		≥18
Semi-Rebonded Magnesite-Chrome Brick	SRMC-16A	≤17	≥40	≥1750	≥60	≤1.5		≥16
	SRMC-16B	≤17	≥35	≥1700	≥60	≤1.8		≥16
	SRMC-20A	≤17	≥40	≥1750	≥55	≤1.5		≥20
	SRMC-20B	≤17	≥35	≥1700	≥55	≤1.8		≥20
Rebonded Magnesite-Chrome Brick	RMC-16	≤16	≥45	≥1750	≥65	≤1.2		≥16
	RMC-20	≤16	≥45	≥1750	≥60	≤1.2		≥20
	RMC-24	≤16	≥45	≥1750	≥52	≤1.2		≥24
	RMC-26	≤16	≥45	≥1750	≥50	≤1.2		≥26

Materials for Glass Industry	Code	Physical Specification				Chemical Analysis	
		B.D. (g/cm ³)	A.P. (%)	C.C.S. (Mpa)	R.U.L (T0.6)(°C)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)
Mullite Brick	MS-60	≥2.45	≤20	≥50	≥1600	≥60	≤1.2
	MS-65	≥2.5	≤20	≥50	≥1650	≥65	≤1
	MS-70	≥2.55	≤20	≥55	≥1700	≥70	≤0.8
	MS-75	≥2.6	≤20	≥60	≥1700	≥75	≤0.6
Corundum Brick	GY-90	≥2.95	≤16	≥80	≥1620	≥90	≤1
	GY-94	≥3.1	≤16	≥80	≥1650	≥94	≤1
	GY-98	≥3.1	≤20	≥60	≥1700	≥98	≤0.3
Corundum-Mullite Brick	GM-80	≥2.65	≤20	≥60	≥1700	≥80	≤0.5
	GM-85	≥2.75	≤20	≥60	≥1700	≥85	≤0.5

Note: B.D is short for Bulk Density

A.P is short for Apparent Porosity

C.C.S is short for Cold Crushing Strength

R.U.L is short for Refractoriness Under Load