

Rongsheng Magnesia Bricks Physical and Chemical Index Tables

1. Technique Data of Magnesia Brick

Item	Specification						
	M98	M97A	M97B	M95A	M95B	M91	M89
MgO %	≥97.5	≥97	≥96.5	≥95	≥94.5	≥91	≥89
SiO ₂ %	≤1.0	≤1.2	≤1.5	≤2.0	≤2.5	/	/
CaO %	/	/	/	≤2.0	≤2.0	≤3.0	≤3.0
Apparent Porosity, %	≤16	≤16	≤18	≤16	≤18	≤18	≤20
Bulk Density,g/cm ³	≥3.0	≥3.0	≥3.0	≥2.95	≥2.95	≥2.9	≥2.85
CCS,MPa	≥60	≥60	≥60	≥60	≥60	≥60	≥50
0.2MPa RUL °C	≥1700			≥1650		≥1560	≥1500
PLC, %	1650°C×2h -0.2~0			1650°C×2h -0.3~0		1600°C×2h -0.5~0	1600°C×2h -0.6~0

2. Technique Data of Magnesia Chrome Brick

Item	Specification					
	MG-16A	MG-16B	MG-12A	MG-12B	MG-8A	MG-8B
MgO %	≥50	≥45	≥60	≥55	≥65	≥60
Cr ₂ O ₃ %	≥16	≥16	≥12	≥12	≥8	≥8
Apparent Porosity, %	≤19	≤22	≤19	≤21	≤19	≤21
CCS, MPa	≥35	≥25	≥35	≥30	≥35	≥30
0.2MPa RUL °C	≥1650	≥1550	≥1650	≥1550	≥1650	≥1530

3. Direct-bonded Magnesia Chrome Brick

Item	Specification			
	ZMG-16A	ZMG-12A	ZMG-8A	ZMG-6
MgO %	≥60	≥68	≥75	≥75
Cr ₂ O ₃ %	≥16	≥12	≥8	≥6
SiO ₂ %	≤1.5	≤1.5	≤1.5	≤2.5
Apparent Porosity, %	≤18	≤18	≤18	≤18
CCS, MPa	≥40	≥45	≥45	≥45
0.2MPa RUL °C	≥1700			

4. Semi-rebonded Magnesia Chrome Brick

Item	Specification						
	BMG-26	BMG-24	BMG-22	BMG-20A	BMG-18	BMG-16A	BMG-12A
MgO %	≥50	≥50	≥55	≥58	≥58	≥60	≥68
Cr ₂ O ₃ %	≥26	≥24	≥22	≥20	≥18	≥16	≥12
SiO ₂ %	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Apparent Porosity, %	≤16	≤16	≤16	≤16	≤16	≤16	≤16
CCS, MPa	≥40	≥45	≥45	≥45	≥40	≥45	≥45
0.2MPa RUL °C	≥1700						

5. Fused Reboned Magnesia Chrome Brick

Item	Specification					
	DMG-26	DMG-24	DMG-22	DMG-20	DMG-16	DMG-12
MgO %	≥50	≥50	≥55	≥58	≥62	≥68
Cr ₂ O ₃ %	≥26	≥24	≥22	≥20	≥16	≥12
SiO ₂ %	≤1.5	≤1.5	≤1.5	≤1.5	≤1.5	≤1.5
Apparent Porosity, %	≤16	≤16	≤16	≤16	≤16	≤16
CCS, MPa	≥40	≥40	≥40	≥40	≥40	≥40
0.2MPa RUL °C	≥1700	≥1700	≥1700	≥1700	≥1700	≥1700

6. Technique Data of Magnesia-alumina Spinel Brick

Item	Specification			
	MLJ-90	MLJ-85	MLJ-80	MLJ-75
MgO %	≥90	≥85	≥80	≥75
Al ₂ O ₃ %	3~8	5~12	8~17	≥8~12
Apparent Porosity, %	≤17	≤17	≤16	≤19
Bulk Density, g/cm ³	≥2.95	≥2.95	≥2.90	≥2.85
CCS, MPa	≥45	≥45	≥55	≥40
0.2MPa RUL °C	≥1700			≥1650
TSR, Cycle 1100°C Water	≥3	≥8	≥12	≥8

7. Technique Data of Magnesia Calcium Brick

Item	Specification			
	MG20	MG30	MG40	MG50
CaO %	≥18	≥28	≥38	≥48
MgO+CaO %	≥94			
SiO ₂ +Al ₂ O ₃ +Fe ₂ O ₃ %	≤2.5			
Apparent Porosity %	≤15			
Bulk Density g/cm ³	≥2.95			≥2.9
CCS MPa	≥60			
0.2MPa RUL, °C	≥1700			

8. Technique Data of Magnesia-iron Spinel Brick

Item	Specification	
	MIS	HMIS
MgO %	≥85	≥88
Fe ₂ O ₃ %	5~7.5	5~6
Al ₂ O ₃ %	3~5	4~7
Bulk Density, g/cm ³	≥3	≥2.9
Apparent Porosity, %	≤17	≤16
CCS, MPa	≥45	≥55
TSR, Cycle 1100°C Water	≥6	≥8
0.2MPa RUL °C	≥1600	≥1650
Thermal Expansion Rate, % 1400°C	≤1.6	≤1.7
Thermal Conductivity, W/(m • K) 350±25°C	≤2.6	≤2.6

9. Technique Data of Magnesia Zirconia Brick

Item	Specification		
	MZ8	MZ10	MZ13
MgO %	≥80	≥75	≥70
ZrO ₂ %	≥8	≥10	≥13
Apparent Porosity, %	≤19	≤18	≤18
Bulk Density, g/cm ³	≥2.95	≥3.0	≥3.05
CCS, MPa	≥50	≥45	≥40
0.2MPa RUL °C	≥1600	≥1550	≥1600
TSR, Cycle 950°C Air	≥10	≥10	≥10