

氧化鋯質滑板、氧化鋯鑲嵌滑板 Zirconia Slider, Zirconia Mosaic Slider

流鋼孔用氧化鋯質滑板、氧化鋯鑲嵌滑板，可保證管線鋼等鈣處理鋼處理鋼的澆注。

Zirconia slider or zirconia mosaic slider used for steel flowing hole will ensure the poring of calcium processing steel, such as pipeline steel.



Product Specification:

Properties	Brand	Slider Mosaic A	Slider Mosaic B
Bulk Density (g/cm ³)		≧4.5	≧4.6
Cold Crushing Strength(MPa)		≧90	≧120
ZrO+CaO (%)		≧98	≧98

透氣磚

Porous Bricks

本公司的透氣磚，採用先進的生產技術，分狹縫式和擴散型兩種類型。產品應用於爐外精煉和頂底復合吹煉等。本系列產品具有優良的抗熱震穩定性、耐侵蝕性和抗氧化性。

Porous Brick, made with advanced technology, it is classified into slit type and diffused type. It is applied in outside furnace smelting and top & bottom blowing smelting and so on. It possesses good capability of thermal shock resistance, erosion resistance and oxidation resistance.



Product Specification:

Properties \ Type	Diffused		Slit	
	High Alumina	Corrundum	Inner Plate	Central Seat
Bulk Density (g/cm ³)	≧2.40	≧2.70	≧2.95	≧2.70
Apparent Porosity (%)	≦30	≦30	≦21	≦28
Cold Crushing Strength (Mpa)	—	—	≧65	≧35
Chemical Composition(%) Al ₂ O ₃	≧78	≧90	≧95	≧95

流道嘴磚

分鋼槽用莫來石透氣上水口 Mullite Porous Nozzle for Tundish

莫來石透氣分鋼槽是一種具有透氣性能的耐火材料，耐高溫，耐鋼水侵蝕和沖刷，對於氧化物的粘附抵抗性能好，適用於轉爐和電爐的連鑄大型分鋼槽。

Mullite porous nozzle is the porosity refractory, good resistance of erosive and corrosive to molten steel, good resistance of high temperature and adhesive from the oxide. It is used in large tundish for continuous casting of electric furnace and converter furnace.

Product Specification:

Properties \ Brand	MTS	ZMTS
Cold Crushing Strength (Mpa)	≥ 40	≥ 40
Permeability (NL/min)	≥ 200	≥ 150
Bulk Density (g/cm ³)	≥ 2.40	≥ 2.42
Apparent Porosity (%)	≤ 27	≤ 25
Chemical Composition (%)		
Al ₂ O ₃	≥ 77	Al ₂ O ₃ +ZrO ₂ ≥ 78
Fe ₂ O ₃	≤ 1.5	≤ 1.5

長水口 Long Nozzle

本公司長水口按功能分主要有預熱／非預熱及吹氬／不吹氬型；按材質分主要有鋁碳質、鋁鎂碳質、鎂碳質等。本產品在使用過程中具有良好的耐鋼水沖刷性能，能有效防止鋼水的氧化和飛濺。

Long nozzles can be classified by:

- 1.Functions: Preheating/ non-preheating, blowing argon/non-argon.
 - 2.Materials: Alumina-carbon, alumina-zirconia-carbon, magnesia-carbon, etc.
- It possesses good capacity of erosion resistance, anti-oxidation and anti-splashing.



Product Specification:

Properties \ Brand		Body		Slag Line		
		Preheat	Non-Preheat	Neutral	Acid	Alkaline
Bulk Density (g/cm ³)		≥ 2.16	≥ 2.10	≥ 2.40	≥ 3.42	≥ 2.52
Apparent Porosity (%)		≤ 20	≤ 20	≤ 18	≤ 18	≤ 18
Cold Crushing Strength (Mpa)		≥ 20	≥ 20		≥ 20	≥ 18
Modulus of Rupture (Mpa)		≥ 6	≥ 6	≥ 6	≥ 6	≥ 4
Chemical Composition (%)	Al ₂ O ₃	≥ 40	≥ 35	≥ 56	—	—
	ZrO ₂	—	—	—	≥ 72	—
	MgO	—	—	—	—	≥ 56
	C+SiC	≥ 28	≥ 23	≥ 23	≥ 15	≥ 15

浸入式水口 Submerged Nozzle

本公司浸入式水口按材質和功能分主要有吹氬/不吹氬、快速更換型、鋁碳質、鋁鎢碳質、鎂碳質等類型。本產品在使用過程中具備良好的耐鋼水沖刷性能、抗鋼水氧化和渣侵蝕性能。



Classified by materials and functions, our products can be grouped into blowing argon/ non-argon, fast replacement, alumina-zirconia-carbon, alumina-carbon, magnesia-carbon, etc. It possesses good capacity of erosion resistance to molten steel, anti-oxidation by molten steel and anti-corrosion by slag. We can provide products made of various materials according to the specific conditions of the steel companies.

Product Specification:

Properties \ Brand	Body		Anti Al ₂ O ₃ Sedation		Slag Line	
	Pre-Heat	Non-Heat	Blow Argon	Non Argon	SL-1	SL-2
Cold Crushing Strength (Mpa)	≥ 19	≥ 20	≥ 10	≥ 18	≥ 16	≥ 16
Modulus of Rupture(Mpa)	≥ 6.5	≥ 6.5	—	—	≥ 3.0	≥ 3.0
Bulk Density (g/cm ³)	≥ 2.26	≥ 2.37	≥ 2.10	≥ 2.60	≥ 3.5	≥ 3.25
Apparent Porosity (%)	≤ 19	≤ 19	≤ 25	≤ 20	≤ 23	≤ 20
Chemical Composition (%)						
Al ₂ O ₃	≥ 40	≥ 40	≥ 42	—	—	—
ZrO ₂	—	—	—	≥ 36	≥ 75	≥ 63
C + SiC	≥ 25	≥ 20	≥ 20	≥ 15	≥ 12	≥ 16

整體塞棒

Monolithic Stopper

本公司之整體塞棒按材質分類主要有鋁碳質、鋁鎢碳質、鋁鎂碳質等。由於本產品具有良好的抗渣侵蝕性能、常溫抗折強度、優良的耐鋼水侵蝕和沖刷性能，進而保證了本產品使用過程中的可靠性。

Classified by materials, our monolithic stoppers can be grouped into Alumina-Carbon, Alumina-Zirconia-Carbon, Alumina-Magnesia-Carbon etc. As it performed good resistance to the slag、corrosion、rupture and erosion, it ensure reliable during usage.



Product Specification:

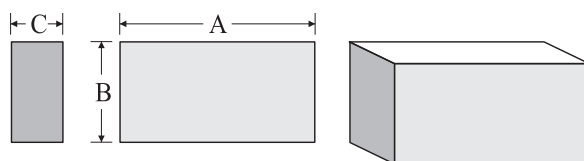
Properties \ Brand	SB-1		SB-2	
	Body	Head	Body	Head
Cold Crushing Strength (Mpa)	≧20	≧25	≧20	≧20
Modulus of Rupture (Mpa)	≧5	≧8	≧5	≧5
Bulk Density (g/cm ³)	≧2.40	≧2.80	≧2.40	≧2.50
Apparent Porosity (%)	≧20	≧18	≧20	≧20
Chemical Composition (%)				
Al ₂ O ₃	≧50	≧77	≧50	—
MgO	—	—	—	≧62
C + SiC	≧20	≧10	≧20	≧15

JIS標準磚的尺寸及型狀

JIS Standard Size & Shape

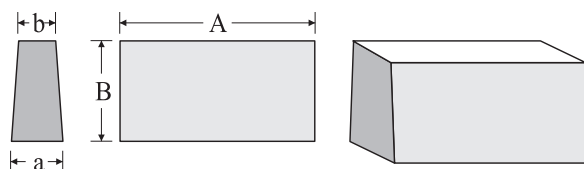
標準型Standard(mm)：

	A	B	C
Straight 並型磚	230	114	65
Sood 半條磚	230	57	65
Split Brick 半片磚	230	114	32



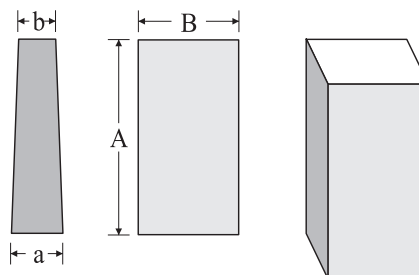
橫楔型Arch(mm)：

	A	B	a	b
Y0	230	114	65	61
Y1	230	114	65	59
Y2	230	114	65	50
Y3	230	114	65	32



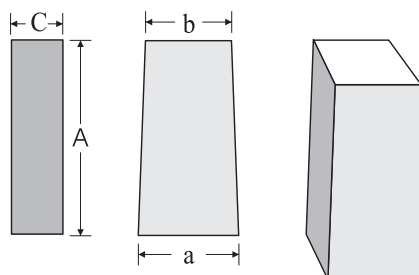
縱楔型Wedge(mm)：

	A	B	a	b
T0	230	114	65	60
T1	230	114	65	55
T2	230	114	65	45
T3	230	114	65	35



Key(mm)：

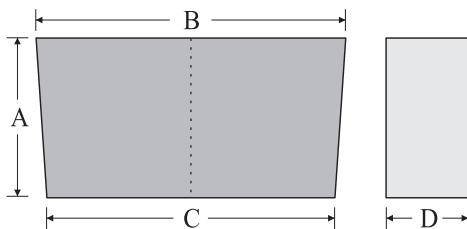
	A	a	b	C
B0	230	114	108	65
B1	230	114	105	65
B2	230	114	85	65
B3	230	114	65	65



Minikey系列 尺寸一覽表

品名	A	B	C	D
127/10	127	155	145	100
127/20	127	160	140	100
127/30	127	165	135	100
152/10	152	155	145	100
152/20	152	160	140	100
152/30	152	165	135	100
178/10	178	155	145	100
178/20	178	160	140	100
178/30	178	165	135	100
210/10	210	155	145	100
210/20	210	160	140	100
210/30	210	165	135	100
230/10	230	155	145	100
230/20	230	160	140	100

品名	A	B	C	D
230/30	230	165	135	100
250/10	250	155	145	100
250/20	250	160	140	100
250/30	250	165	135	100
300/20	300	160	140	100
300/40	300	170	130	100
350/0	350	150	150	100
350/8	350	154	146	100
350/40	350	170	130	100
350/80	350	190	110	100
400/0	400	150	150	100
400/8	400	154	146	100
400/40	400	170	130	100
400/80	400	190	110	100



其他 Other Bricks

尺寸 Measure			備註
A	B	C	Remark
230 mm	171 mm	65 mm	橫一丁半磚
345 mm	114 mm	65 mm	縱一丁半磚
460 mm	114 mm	65 mm	二丁磚
460 mm	230 mm	65 mm	四丁磚
390 mm	230 mm	114 mm	六丁磚
520 mm	230 mm	114 mm	八丁磚
650 mm	230 mm	114 mm	十丁磚
780 mm	230 mm	114 mm	十二丁磚

