

# PRODUCTS



## Richards Bay Minerals SA

### Sorelmetal (High Purity Pig Iron)

An ilmenite derived product from mainstream Titanium Dioxide extraction. It is ideal for ductile iron production, ensuring consistent quality and low levels of deleterious elements.

Grade	C weight %			Mn weight %			Si weight %			S weight %			P weight %		
	Min.	Norm.	Max.	Min.	Norm.	Max.	Min.	Norm.	Max.	Min.	Norm.	Max.	Min.	Norm.	Max.
Basic	3.2	-	-	-	-	-	-	-	-	-	0.05	0.09	-	-	0.01
E	3.2	3.9	-	-	-	0.08	-	0.15	0.35	-	-	0.09	-	-	0.045
FSM	3.2	-	-	-	-	0.08	-	-	1.3	-	-	0.09	-	-	0.1
F2	3.6	3.9	4.2	0.00	0.030	0.08	0.00	0.15	0.4	0.00	0.008	0.035	0.00	0.029	0.04
F10	3.9	4.25	4.7	0.00	0.022	0.05	0.00	0.15	0.4	0.00	0.006	0.015	0.00	0.028	0.04
S100	3.7	4.1	4.5	0.00	0.034	0.06	0.75	1.05	1.35	0.00	0.006	0.030	0.00	0.029	0.04
TF10	4.0	4.2	-	0.021	0.035	-	0.100	0.014	0.036	0.007	0.012	-	0.027	0.03	-

Average ingot size and weight: 60 mm x 270 mm x 130 mm, 9 kg

Pig iron derivatives	Beach iron	High purity (high carbon, low residuals) pig iron slabs crushed into manageable shaped blocks.
	Chips	Small chips produced during the production of pig iron ingots
	Iron by-product skulls	Large iron by-products blocks crushed into manageable size
Mineral Sands	Rutile	Available as 92% or 87% TiO <sub>2</sub> , packaged in 40kg or 1 Ton bulk bags. This product is used in the welding products and refractory industries.
	Zircon	Available in prime or standard grades, packaged in 40kg durable paper bags or 1 Ton lined bulk bags. This product is used in the ceramic, refractory and foundry industries as glazing, mould and core material. Standard grade Zircon is upgraded to a micronized Zircon (opacifier) by means of a calcining process and is available as Prime Calcined Zircon - more suited to high quality ceramic applications.

## Impala Platinum SA

**Nickel** Available in briquetted or powder form with a purity of 99.8%. Normal packaging – sealed 250kg drums, smaller packaging may be arranged. Laboratory certificates are available for each batch of Ni produced.

**Cobalt** High purity Cobalt metal powder with a purity of 99.8% Co. Packed as required

## Samancor Chrome SA

Grade	Sizing	Carbon %	Chromium %	Silicon %
Plasma Chrome	25 – 80 mm	8 – 9%	50 – 55%	1 – 2%
	3 – 15 mm			
Charge Chrome	10 – 100 mm	6 – 9%	47 – 50%	6.5% Max
	4 – 25 mm			

## KBM Afflips Europe

**Master Alloys** Copper  
Aluminium  
(Larger variety available on request) Available in waffle bar, ingot, wire and rod form.

**Nickel Boron** Surface deposit coating that can be applied to a wide range of metals to improve wear and corrosion resistance.

## Speciality Products

**Ceramic Filters** Suitable for both ferrous and non-ferrous metals (various dimensions and pore sizes)

**Recarburiser** Low sulphur

**Slag Coagulant** Expanded perlite for increased efficiency.

**Magsave** High efficiency nodulariser cover for use in the sandwich treatment of SG iron ensuring maximum alloy recovery

## FerroPem Europe (Ferroglobe)

**INOCULANTS** Locally produced and readily available (larger variety available on request).

Trade Name	Product Sizing	Packaging	Key Features
ZL 80	0.2 – 2 mm	100 kg drum	General purpose inoculant with strong anti-fade properties containing 1.2 – 2 % Zirconium and 75 % Si. Designed for late stream inoculation.
Inolate 60	0.2 – 0.7 mm	100 kg drum	
Inolate 30	0.2 – 0.7 mm	100 kg drum	73 - 78 % Si
Inolate 190	0.2 – 0.5 mm	100 kg drum	62 – 69 % Si
Inocast 125	0.5 – 2 / 2 – 4 / 0.3 – 6 / 2 – 6 mm	100 kg drum	62 – 69 % Si
Inocast 175	0.5 – 2 / 2 – 4 / 0.3 – 6 / 2 – 6 mm	100 kg drum	70 – 77 % Si
Inostrong	0.4 – 2 mm	100 kg drum	Effective chill reducing Sr containing inoculant with 75% Si and low levels of Ca and Al.
LMC	0.4 – 2 / 2 – 7 mm	100 kg drum	63 – 70 % Si, 0.5 – 1.2 % Barium

### NODULARISERS

Trade Name	Sizing	Packaging	Key Features
Fesimag 721 & 731	0.6 – 6 mm	120 kg drum & 1 MT bulk bags	6.3 - 7% Mg alloy with higher Ca content for quieter reaction.
Fesimag 731	0.6 – 6 mm / 2 – 10 mm / 10 – 30 mm	120 kg drum & 1 MT bulk bags	7% Mg alloy with higher Ca and RE for quieter reaction and higher alloy recovery levels (other varieties available on request).

## Other

Grade	Sizing					
Low Carbon Ferro Chrome LCFeCr	10 – 80 mm	0.05 % C	58 – 62 % Cr	1.0 % Max Si		
Medium Carbon Ferro Chrome MCFeCr	3 – 35 mm	2 % max C	60 % min Cr	0.5 % Max Si		
High Carbon Ferro Chrome HCFeMn	5 – 10 mm	8 % max C	70 % min Mn (typically 75%)	0.5% Max Si	0.2% Max P	0.05% Max S
	5 – 50 mm					
	10 – 80 mm					
Medium Carbon Ferro Manganese MCFeMn	5 – 50 mm 10 – 50 mm	1.5 % max C	78 – 85 % Mn	1% Max Si	0.2% Max P	0.05% Max S
Ferro Titanium FeTi	10 – 35 mm	4% – 5% Al	68 % – 72 % Ti			
Ferro Molybdenum FeMo	1 – 10 mm		64 % min Mo			
	10 – 50 mm					
Ferro Vanadium FeV	4 – 50 mm		60 % min V			
Ferro Silicon	10 - 80 mm	0.3 % Max C	70 % Min Si	1.5 % Max Al		
	10 - 80 mm	0.3 % Max C	73 % Min Si	0.5 % Max Al		
Ferro Boron	5 – 30 mm	0.5 % Max C	17 & Min B	1 % Max Al	2 % Max Si	0.5 % Max S/P
Silico Manganese	10 – 80 mm	2 % Max C	65 – 70 % Mn	15 % Max Si	0.2% Max P	0.2% Max S
Nitrovan	10 – 80 mm	3.72 % C	76.6 % V	15.7 % N	1.38 % O	

\*Other special alloys are available on request.

## Services

- Product support
- Technical support on Ferroalloy production
- Assistance with charge and recovery calculations
- Microstructure analysis
- Material recommendations to optimise processes and production



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