STEEL SLAG APPLIED IN SURFACE TREATMENT

Our steel slag is widely used in surface treatment esp. in metal industries with the following advantages over copper ore:

1, Steel slag is cheaper than copper ore, thus lowering the costs in abrasive blasting.

2, SiO_2 contained in steel slag forms silicate rather than crystallized free silicon (such as quartz), so there is not slicon dusts formed in blasting. It is well know silicon dusts with free SiO2 as the main composition is very harmful to the human.

3, The slag is harder than copper ore, so not easily broken into dusts after blasting.

4, Steel slag is more recyclable than copper ore. With optimal recycles, 1 ton slag can be blasted around 35 m^2.

5, Steel slag has much better derusting performance than copper ore for its sharp and subangular grain shapes.

6, For its high containment of ferric oxide (FeO), steel slag has been an excellent additive in cement production. Blasted steel slag, containing 50% ferric oxide, is an irreplaceable addtive in cement.

Slag-blasted

Contrast List of Steel Slag vs Copper Ore after Blasting		
Index	Steel Slag	Copper Ore
Hardness (HV 0.2)	668	616
Recycle Efficiency	High (7 Times)	Medium (4 Times)
Dusting	Not Serious	Serious
Tailing	Smooth & Not Jamming	Jamming
Blasted Surface	Sa 2.0-Sa 2.2	Sa 2.0-Sa 2.5
Re-Rusting	No	Yes
FeO Proportion	50-55%	40-45%

Ore-blasted

Test Outcomes (Test Report 08L120HX)

Test Standards: YG/T 140-1998 GB/T18046-2000 **Sample Name:** Roller Slags of Electric Furnace

Condition	Temp.(℃)	Humidity (%)	**Date**	2009-3-2~2009-3-9	**Quality**	Wet, Grained and Clean
	20~22	72-75				

Chemical Composition (%)										
SiO_2	**Fe_2O_3**	**Al_2O_3**	**CaO**	**MgO**	**FeO**	**Mfe**	**S**	**P**	**f.CaO**	**Water**
9.35	10.69	1.53	34.36	7.35	28.25	1.89	0.052	0.46	0	0.6

Specification (Physical)				
Sr. Code	**Index**	**Reference**	**Standard Values**	**Data/Result of Test**
1	**Apparent Density**	ISO-11127-3	3.3~3.9 x10^3kg/m^3	3.9 x10^3kg/m^3
2	**Mohs Hardness**	ISO-11127-4	Min. 6	Min. 6
3	**Moisture**	ISO-11127-5	≤0.2%	0.05%
4	**Conductivity of Aqueous Extract**	ISO-11127-6	≤25 mS/m	4 mS/m
5	**Water-soluable Chlorides**	ISO-11127-7	≤0.0025%	0.0004%

Grain Distribution								
		＜0.8mm	**0.8mm**	**1mm**	**1.5mm**	**2mm**	**2.5mm**	**3mm**
1	**Coarse**	1.85%	6.96%	13.70%	18.16%	21.08%	36.34%	1.92%
2	**Fine**	13.70%	18.16%	36.34%	21.08%	10.72%		