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IRON-SILICATE FINES SPECIFICATION

1. Chemical composition [on dry basis]

Element	Typical	Range
Fe	46.00 %	(44 ÷ 48 %)
SiO2	27.00 %	(26 ÷ 28 %)
Al2O3	3.20 %	(2.7 ÷ 3.7 %)
CaO	1.80 %	(1.3 ÷ 2.5 %)
MgO	0.70 %	(0.6 ÷ 1.1 %)
Zn	1.50 %	(0.9 ÷ 2.8 %)
Cu	0.42 %	(0.36 ÷ 0.48 %)
S	0.36 %	(0.25 ÷ 0.55 %)
As	0.05 %	(0.03 ÷ 0.09 %)
Cl	0.004 %	(0.0019 ÷ 0.0075 %)
C	0.019 %	(0.008 ÷ 0.043 %)

2. Moisture Typical 10%

3. Mineralogical and Phase characteristics

Iron minerals: Magnetite (14 ÷ 28 %), iron silicates such as Fayalite and Piroxene.
Iron phases: Fe (II) 32 ÷ 38 % and Fe (III) 8 ÷14 %.
Silica minerals: Silica is presented as free Quartz, iron and other silicates.
Copper minerals: Copper is presented in all forms.

4. Grain size distribution

Percentage	Grain size
0 %	> 200 micron
< 10 %	200 ÷ 71 micron
< 25 %	71 ÷ 40 micron
< 25 %	40 ÷ 20 micron
> 50 %	< 20 micron

5. Physical properties

Specific gravity:	approx. 3.8
Bulk density:	approx. 2.4 g/cm³
Color:	anthracite / grey-black
Appearance:	fines