

Technical Data Sheet for Alluvial Garnet

1. Average chemical composition (WT%)

SiO ₂ -----	37.31
Al ₂ O ₃ -----	20.8
Fe ₂ O ₃ +FeO -----	29.15
MgO -----	8.8
MnO -----	0.8
CaO -----	1.1
TiO ₂ -----	1.2

2. Physical characteristics

Shape of garnet particles -----	Sub-angular to sub rounded
Color -----	Pink
Oudour -----	No appreciable
Solubility in water -----	Insoluble
Bulk Density -----	>2000kg/M3
Specific gravity -----	3.8-4.3 g/cm3
Melting point -----	1170℃-1280℃
Hardness -----	7.50-8.0(hm)
Mean refractive -----	1.714-1.887

3. Other characteristics

Conductivity of aqueous extract -----	48-83μS /cm
Radioactivity -----	Not detectable
Chloride -----	Less than 1ppm
Moisture -----	Non-hydroscopic
Free iron -----	Non
Free silicon -----	Non
Other heavy metal -----	Non

4. Particle Distributions

Tyler Screen	Opening (Microns)	#12/20	#20/40	#30/60	#80
10	2000				
12	1700	0-5			
14	1400	10-20			
16	1180	20-30			
20	1000	20-40	5-10		
24	710	0-5	10-30		
30	600		30-60	0-2	
35	500			10-20	
40	425		5-10	10-20	
45	355		0-5	10-30	0-2
50	325		0-5	20-30	5-10
60	250			10-30	25-35
70	212			5-10	25-35
80	180			0-2	10-20
100	150				10-20
-100	150				5-10
120	125				
140	106				