

HA 7118

Co Ni Cr Mo Self Flux

Product Code: 257118
Technical Data Sheet

Revision: # 002
Dated: 03/29/12

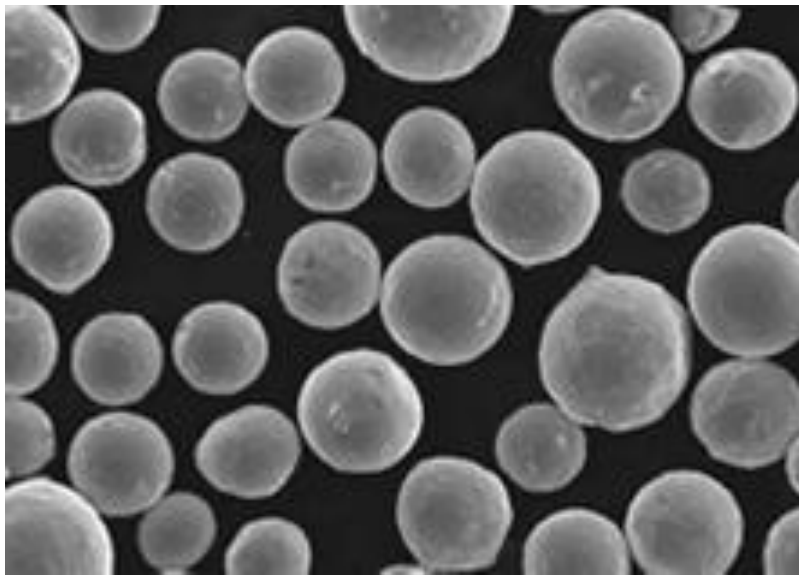


Figure 1: Typical Powder Morphology

1. PHYSICAL PROPERTIES

HA 7118 is gas atomized spherical self fluxing powder.

Molecular Formula	Co 27Ni 18Cr 6Mo 3.5Si 3B 2.5Fe
Melting Point [°C]	1495
Hall Flow [s/50g] ASTM B213	16 ± 2
Apparent Density [g/cm³] ASTM B212	4.4 ± 0.5

2. CHEMICAL PROPERTIES

2.1. Typical Chemical Analysis

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<u>Element</u>	<u>Weight Percent</u>
Co	BAL.
Mo	5.00 - 6.00
Ni	26.00 – 28.00
Fe	0.00 – 3.00
C	0.10 – 0.30
Cr	18.00 – 19.00
Si	3.10- 3.40
B	3.00 – 3.20

3. POWDER MORPHOLOGY AND PARTICLE SIZE DISTRIBUTION

3.1. Powder Morphology

- 3.1.1. Powder has mainly spherical shape as produced by.
- 3.1.2. Typical Powder Morphology using SEM is shown in Figure 1.

3.2. Particle Size Distribution

- 3.2.1. The typical powder size range measured with Tyler according to ASTM B214 is -125 mesh + 53 μ m
- 3.2.2. Table 1 shows the required and typical particle size distribution measured with Microtrac according to ASTM B822
- 3.2.3. Figure 2 shows the typical Microtrac particle size distribution graph

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Table 1: Typical and Required Microtrac Particle Size Distribution

<u>Percentile</u>	<u>Typical Particle Size</u>		<u>Mean</u>	<u>Required Particle Size</u>
[%]	[μm]			
0.01	37.20		D ₁₀	55.00 – 65.00
5.00	54.98			
10.00	60.23			
16.00	64.44		D ₅₀	75.00 – 85.00
50.00	81.78			
84.00	109.2			
90.00	122.2		D ₉₀	115.00 - 125.00
95.00	144.4			
99.99	293.7			

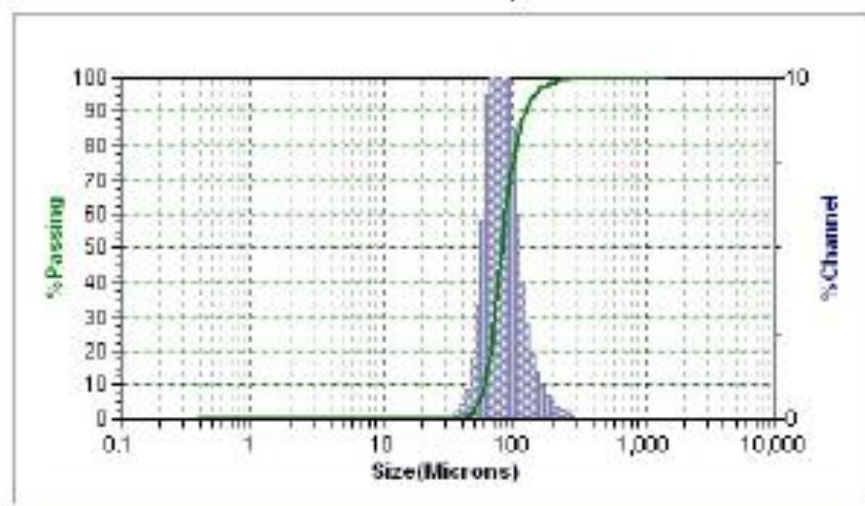


Figure 2 Typical Microtrac Particle Size Distribution