

# HA 7050

## Ni Self Fluxing Alloy

Product Code: 257050  
**Technical Data Sheet**

Revision: # 003  
 Dated: 01/01/11

### CHEMICAL AND PHYSICAL REQUIREMENTS

#### 1.1. CHEMICAL PROPERTIES

1.1.1. Table 1 Typical Chemical Composition

**Table 1**

<b>Element</b>	<b>Ni</b>	<b>Cr</b>	<b>Fe</b>	<b>Si</b>	<b>B</b>	<b>C</b>	<b>Others</b>
<b>% max</b>	Balance	20	6	5	5	1.3	0.7
<b>% min</b>		13	3	3	2.75	0.6	0.2

#### 1.2. PHYSICAL PROPERTIES

1.2.1. Hall Flow per ASTM B213                                  12 – 25 [s/50g]

1.2.2. Apparent Density per ASTM B212                      3.8 – 4.8 [g/cm<sup>2</sup>]

### PARTICLE SIZE AND POWDER MORPHOLOGY REQUIREMENTS

#### 1.3. REQUIRED PARTICLE SIZE DISTRIBUTION

1.3.1. Sieve Analysis per ASTM E11 and ASTM B214 (Table 2)

**Table 2: Cumulative Volume Percentage**

<b>Mesh Size</b>	<b>Particle Size</b>	<b>Maximum Percentage</b>	<b>Minimum Percentage</b>
-325	-44 μm	100	99.9

1.3.2. Microtrac Particle Analysis per ASTM B822 (Table 3)

# HA 7050

## Ni Self Fluxing Alloy

Product Code: 257050  
**Technical Data Sheet**

Revision: # 003  
 Dated: 01/01/11

**Table 3: Typical Microtrac Analysis**

Percentile	Particle Size		Mean	Required Particle Size
0.01 %	6.56 $\mu\text{m}$		D <sub>10</sub>	10 - 15 $\mu\text{m}$
5 %	11.01 $\mu\text{m}$			
10 %	12.99 $\mu\text{m}$			
16 %	14.55 $\mu\text{m}$		D <sub>50</sub>	20 - 25 $\mu\text{m}$
50 %	20.26 $\mu\text{m}$			
84 %	27.98 $\mu\text{m}$			
90 %	31.04 $\mu\text{m}$		D <sub>90</sub>	30 - 35 $\mu\text{m}$
95 %	35.72 $\mu\text{m}$			
99.9 %	52.21 $\mu\text{m}$			
100 %	52.21 $\mu\text{m}$			