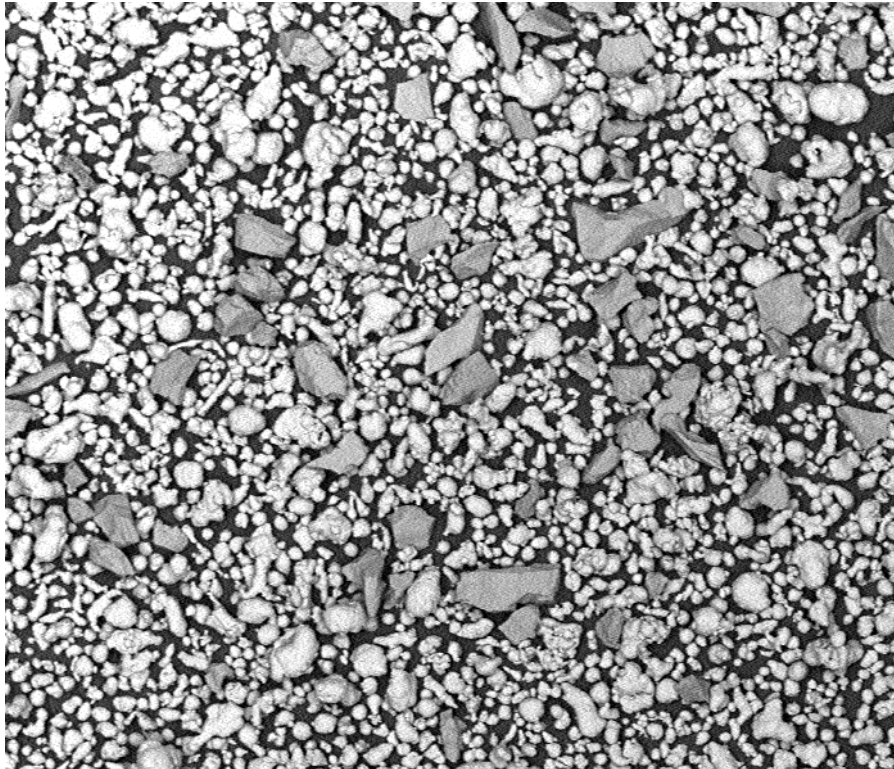


# HA 1073

## Aluminum Cold Spray Composite

Product Code: 1073  
Technical Data Sheet

Revision: # 003  
Dated: 10/12/12



**Figure 1:** Typical Powder Morphology (SEM 200X)

### 1. PHYSICAL PROPERTIES

HA 1073 is an Aluminum Cold Spray composite designed specifically for the cold spray process. It produces very dense coatings and has excellent deposition efficiency.

HA 1073 is widely used for the restoration of Aluminum, Magnesium and Titanium parts.

Product Description	Aluminum Cold Spray Composite
Melting Point [°F]	1,221
Apparent Density (typical) [g/cm <sup>3</sup> ] ASTM B212	0.8 - 1.5
Hall Flow (typical) [sec/50g] ASTM B213	-

# HA 1073

## Aluminum Cold Spray Composite

Product Code: 1073  
Technical Data Sheet

Revision: # 003  
Dated: 10/12/12

## 2. CHEMICAL PROPERTIES

### 2.1. Typical Chemical Analysis

2.2.1 HA 1073 is composed of a proprietary aluminum composite material.

## 3. POWDER MORPHOLOGY AND PARTICLE SIZE DISTRIBUTION

### 3.1. Powder Morphology

- 3.1.1. Powder morphology is water atomized and crushed and sintered
- 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 US Mesh according to ASTM B214-07 is -200 mesh +5  $\mu\text{m}$ . Table 1 shows the typical weight percent distribution in accordance to ASTM B214-07.
- 3.2.2. Figure 2 shows the typical particle size distribution measured with Microtrac according to ASTM B822-10

**Table 1:** Typical and Required Weight Percent Particle Distribution

Mesh Size	Particle Size	Maximum Percentage	Minimum Percentage
200	75	-	95
230	63	-	90
325	44	85	65
400	37	75	55
-	22	40	5
-	15	10	-
-	5	1	-