

## Viromet 347焊球

RoHS  
compliant

### 介绍

近年来朝日致力于研究高品质的Viromet 347焊球。Viromet 347是本公司的专利无铅合金，合金成分：锡、银、铜、铟（锡/银4.1/铜0.5/铟7.0）。这种合金可以直接替代锡/铅焊料。

我们的Viromet 347焊球是为微型焊接工艺设计的，例如球形焊接、BGA球和芯片级尺寸封装的修整和返修，不会影响热敏元件的可靠性。

### 合金组成

主要成分		IPC J-STD-006 Specs (wt%)
锡	Sn	余量
银	Ag	4.1 +/- 0.2
铜	Cu	0.5 +/- 0.1
铟	In	7.0 +/- 0.5
杂质		
铝	Al	0.005 max
砷	As	0.03 max
铋	Bi	0.10 max
镉	Cd	0.002 max
铁	Fe	0.02 max
镍	Ni	0.01 max
铅	Pb	0.05 max
锑	Sb	0.20 max
锌	Zn	0.003 max

\* World Patent No. 03/006200 A1

\* US Patent No. 5,985,212; 6,176,947;  
6,843,862

### 产品特性

测试	测试成绩
合金熔点温度	202 - 207 °C
DSC at 5 °C/min	
密度	7.40 g/cm <sup>3</sup>
Water Displacement Method	
热膨胀系数	21.9 μm/m °C
机械性能 (As-Cast)	
Instron Series IX Automated Materials Test System	
ASTM E8M (3 mm/min at 23 °C)	
抗拉强度	76.17 MPa
屈服强度	56.18 MPa
最大延伸率	39.08 %
变形所需能量	0.230 J
破裂所需能量	18.39 J
韧性	25.01 MPa
低疲乏周期	> 15,000 N <sub>f</sub>

ASTM E606-92

### 包装

Cpk >1.33 (“6 Sigma”)

直径: 0.50mm, 0.45mm, 0.40mm, 0.30mm, 0.20mm,  
100μm and 80μm

所有尺寸的焊球的包装为每瓶50万粒，25万粒或100万粒。若要求其他尺寸和包装，请与本公司销售部联系。

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