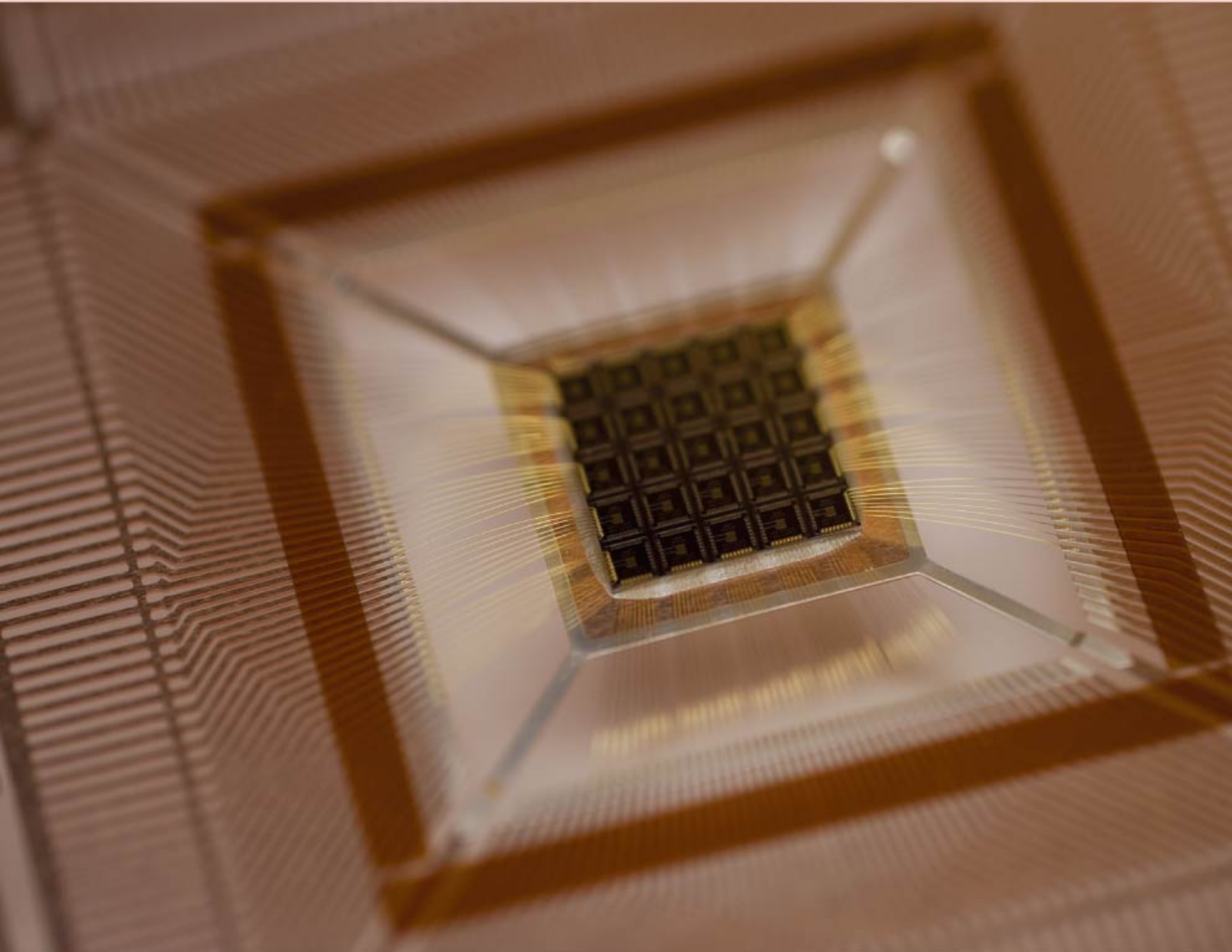


Silver Plated Copper (SPC)

Die Attach Technology



Silver is one of the major cost drivers in conductive die attach. Over the last 10 years the electronics industry has seen silver prices more than tripled making it difficult for the semiconductor packing companies to control their raw material costs. The roll out of Henkel's new silver plated copper (SPC) die attach filler technology is one way to control cost without compromising performance by reducing metal content. This innovative filler technology combined with Henkel's new resin platform is a tool semiconductor packaging companies can use to help hedge against silver prices.





Silver Plated Copper (SPC)



Technical Achievements

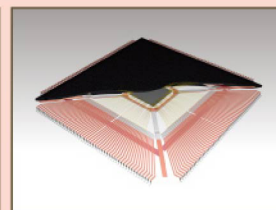
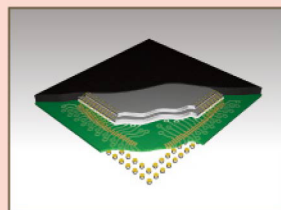
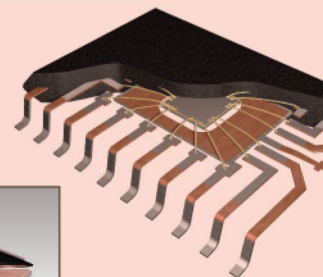
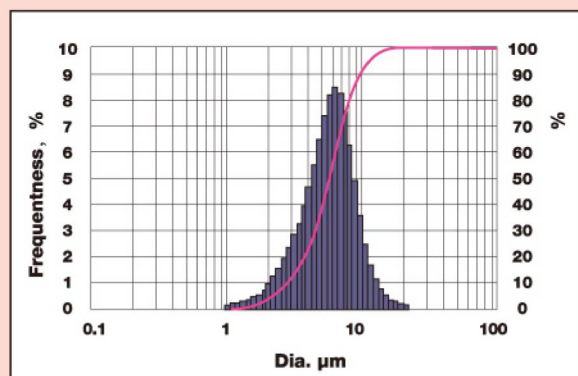
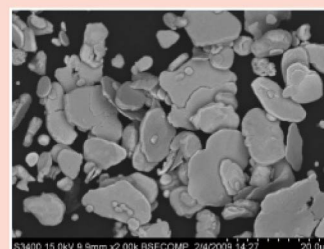
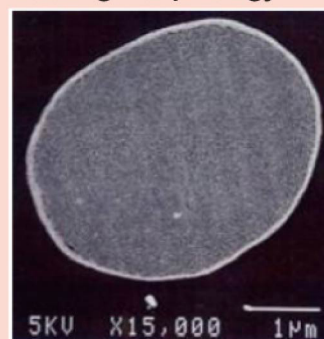
Volume Resistance	1*10E-04 ohm-cm
Thermal Conductivity	> 3 W/mK
Work Life	> 24hrs
Particle Size	< 20 µm
Dispensing Ability	Excellent
Reliability	Excellent

A view on SPC filler

Particle size distribution

PSD	D90	9.6 µm
	D50	5.8 µm
	D10	2.9 µm
S.S.A		0.30 m ³ /g
Tap Density		3.8 g/cm ³
Ag Content		10.7 wt%

Coating morphology



Henkel Electronic Materials LLC
 14000 Jamboree Road
 Irvine, CA 92606
 1.714.368.8000
 1.800.562.8483

Across the Board,
 Around the Globe.
www.henkel.com/electronics



Henkel Americas:
 +1 714 368 8000

Henkel Europe:
 +44 1442 278 000

Henkel Asia:
 +486 21 3898 4800

Except as otherwise noted, all marks used in APH-AE-203 are trademarks and/or registered trademarks of Henkel Corporation and/or its affiliates in the U.S. and elsewhere. ® = registered in the U.S. Patent and Trademark Office. © Henkel Corporation, 2011. All rights reserved. APH-AE-203(2/2011)