

Welco™ AP5112

Water Soluble Halogen Free Solder Paste

Welco™ AP5112 Halogen Free Water Soluble Printing Solder Paste series is designed for use in fine pitch applications.

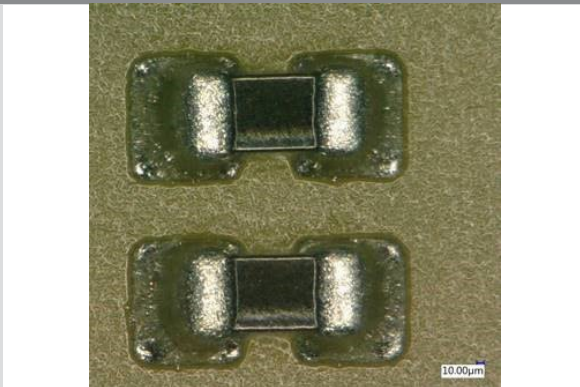


WS5112 Benefits

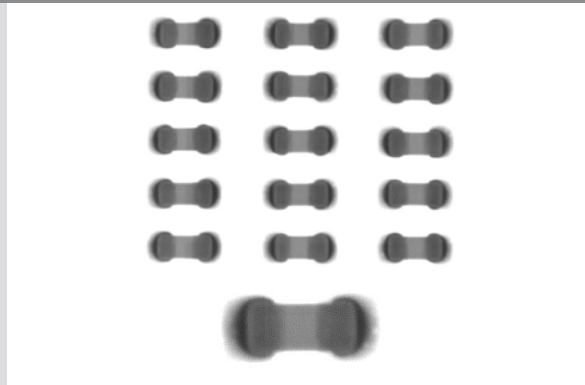
- Halogen free
- Good printability on fine pitch pad size
- Good wetting performance
- Good cleaning properties
- Long stencil life
- No splashing
- Minimal residue
- Available in Type 4 to 7 powders
- Available in low alpha count SAC 305 alloy T5 to T7



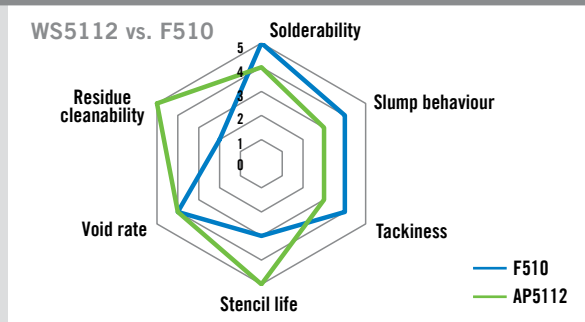
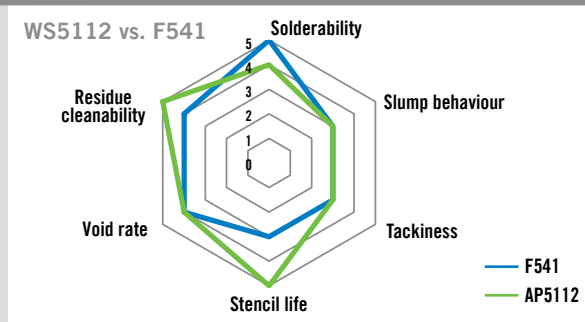
008004 Component Attach with WS5112 Type 7 Solder Paste



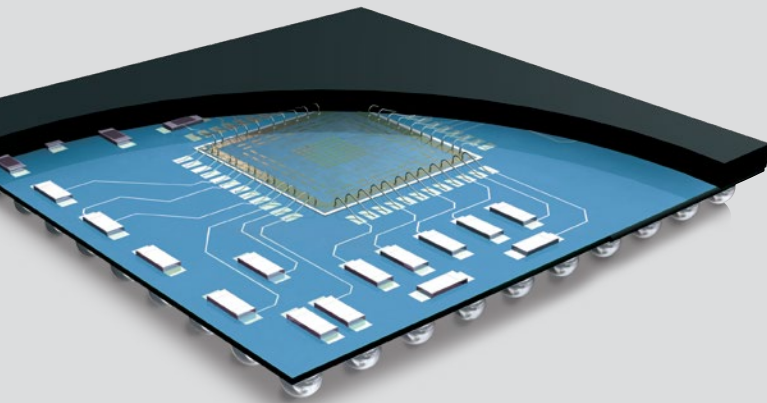
X-ray Images Zero Voids



Benchmarking (WS5112 vs. halogen containing pastes)



Remark: 0 → 5 (from worst to best)



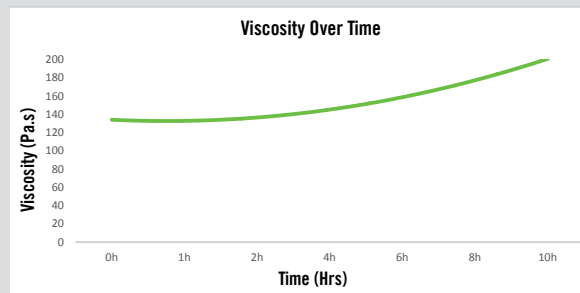
Applications

System In Package	Die attach, components attach
Fine Pitch Assembly	Flipchip attach
Bumping	Wafer bumping, substrate bumping

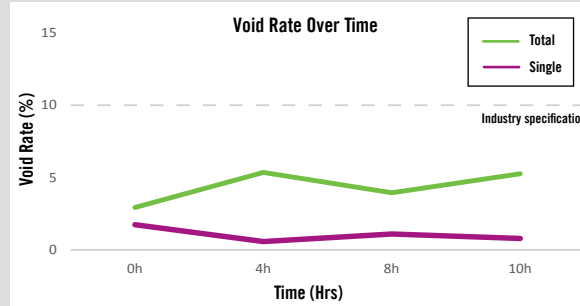
Product Properties Table

Water Soluble Solder Paste – Overview	
Series	WS5112
SIP (Die/Component attach)	+++
FC Attach/Wafer/Substrate bumping	+++
Application	
Print	+++
Properties	
Flux activity (J-STD-004)	H1
Halogen free	+++
Solderability	+++
Slump behavior	+++
Tackiness	+++
Stencil life	+++
Void rate	+++
Residue cleanability	+++
Powder compatibility (Type 3 – 4)	+++
Powder compatibility (Type 5 – 7)	+++

Viscosity Changes Over Printing Time



Void Rate Changes Over Printing Time



Americas
Phone +1 610 825 6050
electronics.americas@heraeus.com

Asia Pacific
Phone +65 6571 7649
electronics.apac@heraeus.com

China
Phone +86 53 5815 9601
electronics.china@heraeus.com

Europe, Middle East and Africa
Phone +49 6181 35 4370
electronics.emea@heraeus.com

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for particular application. The Heraeus logo, Heraeus, Welco® and the Welco figurative mark are trademarks or registered trademarks of Heraeus Holding GmbH or its affiliates. All rights reserved.