# **Electronics**

# Heraeus

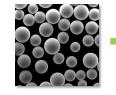


# Welco<sup>™</sup> AP520 Water Soluble SAC305 T7 and T6 Paste

Welco<sup>™</sup> AP520 SAC305 paste is a state-of-the-art water-soluble printing paste, available in both T7 and T6. It is engineered for fine-pitch component and flip chip attach in System-in-Package applications. Featuring excellent stencil opening paste release, no splashing and minimal voids performance over its long work life. These pastes enables all-in-one printing of passive components and flip chips in a single step.

# Key Features

- Best-in-class low voids
- No splashing or beading
- Uses high-quality Welco<sup>™</sup> powders
- Pure DI water cleanable
- Consistent paste release at 55um stencil opening for T7 and 90um stencil opening for T6





Flux System



Welco<sup>™</sup> Powder

Welco<sup>™</sup> AP520 Paste

Welco™ AP520 T7 Continuous Printing Stencil Life Test	он	4Н	8H	12Н
Square aperture				
Circular aperture				

Stencil opening = 55µm, Line spacing = 35µm, Stencil thickness = 25µm, Area ratio: 0.55; ENIG surface

No missing dot or bridging up to 12Hr of continuous printing



 No tombstoning, solder beading or bridging observed up to 12hr of continuous printing and 8hrs staging

Excellent low void performance of <10% in total</p>

### **All-In-One Printing**



#### Benefits:

- Fewer processing steps
- Eliminate flux cost and substrate pre-soldering cost
- Minimize cold joint or incomplete solder formation

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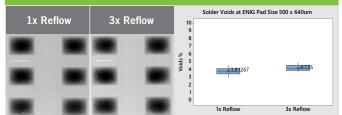
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## Welco™ AP520 T7 Voids Performance After Multiple Reflow



Consistently low voids after 3x reflow demonstrated for AP520