

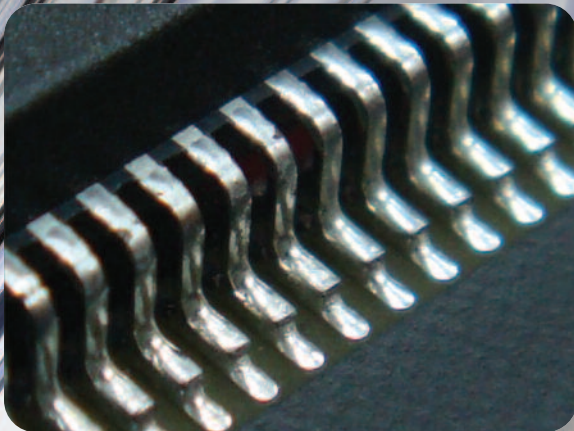
ALPHA® SnCX Plus™ 07 Lead-Free Wave Solder and Rework Alloy



High Performance and Reliability in a No Silver Alloy

ALPHA® SnCX Plus™ 07 is a lead-free, no silver alloy that can be used as a replacement for SnPb, SAC305 and other low and no silver Pb-free alloys for wave and selective soldering, lead tinning, rework and HASL processes. It has been engineered to be a cost-effective alternative to silver bearing alloys in terms of soldering performance and reliability on certain types of electronic assemblies. ALPHA® SnCX Plus™ 07 offers:

- Fast wetting with high wetting force
- Excellent production yields; lower cost of ownership
- Lowest in class dross generation and copper erosion
- Excellent mechanical reliability compared other enhanced no silver alloys
- Smooth, bright solder fillets with no surface cracks



Alloy Properties

SnCX Plus™ 07

Temperature (°C)	229
Solidus Temperature (°C)	227
CTE 30-100°C (µm/m°C)	23.8
CTE 100-180°C (µm/m°C)	24.3
Density (g/cm³)	7.30
Impact Energy (J)	51.2
Hardness (HV 0.2)	9.4

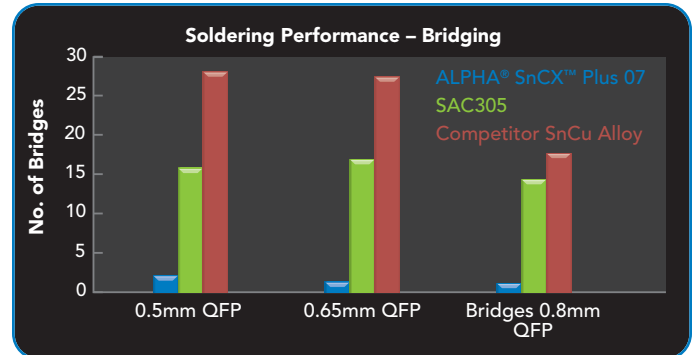
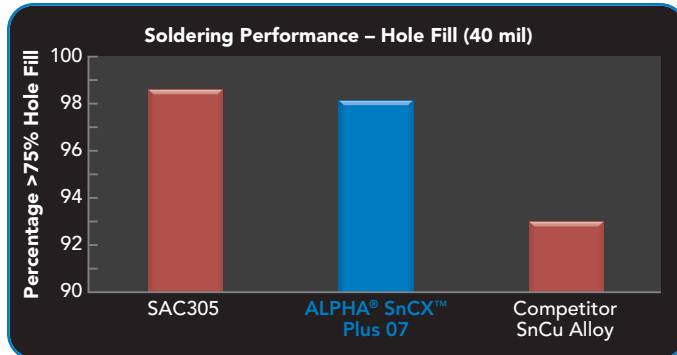
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High Performance and Reliability in a No Silver Alloy

Excellent Soldering Performance = High Yield



Excellent soldering and bridging performance on standard thickness [0.062" (1.6mm)] boards using paper phenolic or FR4 laminates and metalized or OSP pad finishes. A wide process window may also be used including pot temperatures from 260°C and above along with various contact times and flux types.

High Reliability = Lower Field Failures

Through-hole Test Results



Thermal Aging
1,000 hours at 125°C



Thermal Shock
1,000 cycles of -25 to +85°C, 5 mins dwell, 30 mins total cycle time



Thermal Cycling
200 cycles of -25 to +125°C, 20 mins dwell, 55 mins total cycle time

SMT Test Results



Thermal Aging
1,000 hours at 125°C



Thermal Shock
1,000 cycles of -25 to +85°C, 5 mins dwell, 30 mins total cycle time



Thermal Cycling
200 cycles of -25 to +125°C, 20 mins dwell, 55 mins total cycle time

ALPHA® SnCX Plus™ 07 delivers excellent Thermal Fatigue Resistance

- No cracking observed in through hole and SMT joints during testing under common conditions
- Uniform joint formation and consistent hole fill also observed

For more information about SnCX Plus™ 07, please contact your Alpha Representative.

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Worldwide/Americas Headquarters • 300 Atrium Drive • Somerset, NJ 08873 • USA • +1-814-946-1611 – Dial 0 • www.alpha.alent.com
 European Headquarters • Forsyth Road • Sheerwater • Woking GU215RZ • United Kingdom • +44-1483-758-400
 Asia-Pacific Headquarters • 8/F, Paul Y. Centre • 51 Hung To Road • Kwun Tong • Kowloon, Hong Kong • +852-3190-3100