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SOLDER PASTES & THICK-FILM MATERIALS
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ENVIROFLO™ 305
Lead-free Solder Paste

RoHS COMPLIANT

A well established product designed to meet the demands of the surface mount industry as a reliable replacement for conventional lead solders.

Based on the 96.5Sn/3Ag/0.5Cu (SAC305) alloy, 217°C eutectic, EnviroFlo 305 offers superior paste performance exhibiting excellent screen life, printing characteristics, component, acceptance, anti-slump and reflow properties. The resin is colophony-free and the clear benign residue may be left on the processed board or removed using commercially available cleaning solvents.

RESIDUE PERFORMANCE DATA

Test	Specification	Result
Silver Chromate Paper Test: (Test for Halides)	J-STD-004 / IPC-TM-650	Pass
Copper mirror Test:	J-STD-004 / IPC-TM-650	Pass
Surface Insulation Resistance:	J-STD-004 / IPC-TM-650	Pass
Electro-migration:	J-STD-004 / IPC-TM-650	Pass

Every batch of solder paste manufactured by ESL is screen-printed, populated with live components and reflowed using a 4 zone convection oven for product testing before final QA inspection.

PASTE DATA:
Alloy: SAC 305 (96.5% Sn / 3% Ag / 0.5% Cu) - 90% nominal solids
Particle Size: 25 - 45 microns (Type 3)
Packaging: 500g or 1000g Jars, Green Semco Cartridges and 800g ProFlow™ Cassettes
Storage: 4°C - 20°C - May be refrigerated - Paste will need to be taken out of the fridge at least 4 hours before use.
Viscosity: 725 ± 25 kcps
Shelf Life (at 20°C): 6 months

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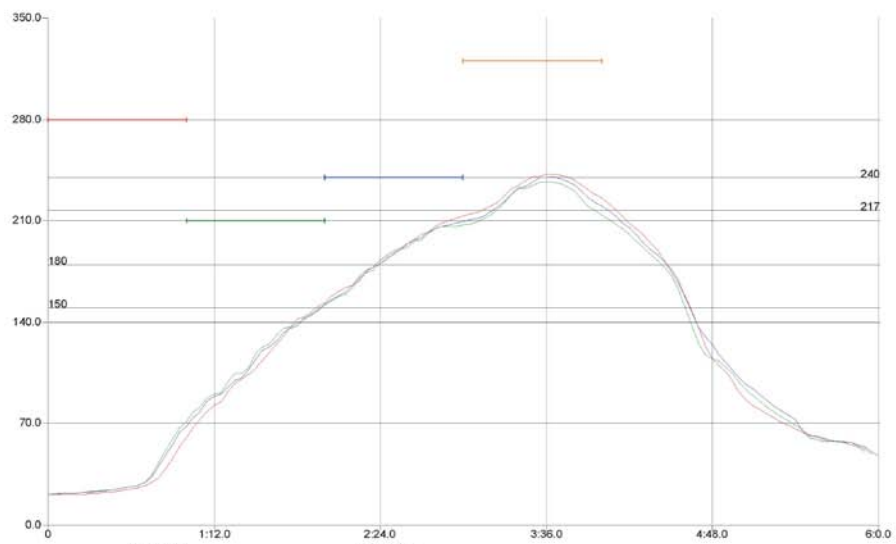
See Caution and Disclaimer on next page.

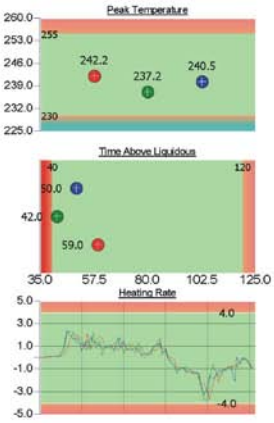
PRINTING: **Screen:** Recommended 120 microns thick, electro-formed, laser cut stencil with 5 - 15% reduction in aperture compared to pad area to eliminate mid-chip beading.
Print speed: 20 - 100 mm/sec
Screen-life: > 8 hours @ 19 - 28 °C
Tack time: > 24 hours @ 19 - 28 °C

REFLOW: A standard reflow profile is shown. This is used to test EnviroFlo™ paste. The following guidelines are used:

Ramp up: 0.5 - 2.5 °C / sec.
Liquidus: Hold above 217°C for between 40 and 120 seconds (typically 15 - 35 °C above liquidus).
Cool down: 2 - 5 °C / sec.

CLEANING: Not usually required but populated boards can be cleaned in commercially available solvents.





Process Data

Channel	Peak	t>150	t>180	150-180	t>217	t>217	t>240	Z1	Z2	Z3	Z4
SO14 lhs	242.2	118.5	143.5	27.0	187.5	59.0	16.0	0.5	1.8	1.0	0.3
1206 middle	237.2	118.5	144.0	25.0	186.0	42.0	0.0	0.8	1.3	1.0	0.2
0805 trc	240.5	118.5	142.5	24.0	183.0	50.0	7.0	0.8	1.4	1.0	0.2

Zone Slopes

Recipe: (Pb-free) Sn/Ag/Cu

1	2	3	4
280	210	240	320
260	210	240	320

30.0 cm/min
DIMA PASSAAT
ESL Europe Enviroflo