



ESL EUROPE

SOLDER PASTES &
THICK-FILM MATERIALS

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NO CLEAN SOLDER PASTE

NC-3701-GE

GE Flux Has Been Independently Tested To Meet The Bellcore Specification

ESL NC-3701-GE is a no-clean RMA solder paste. The paste can be screen printed up to speeds of 200 mm / sec and reflowed according to ESL's standard solder paste processing procedures. Reflowing results in shiny solder joints with a small amount of hard, clear, benign residue that requires no removal. The rheology is suitable for fine pitch applications. The screened paste exhibits excellent tack properties and anti-slump characteristics. Before use, gentle stirring with a spatula is recommended for 15 seconds.

PASTE DATA

Solder Alloy:

(Meets QQ-S-571-E specifications)

62%Sn / 36%Pb / 2%Ag

Particle Size:

-325 / +500 mesh

Rheology:

Screen-printable paste

Viscosity:

(TF spindle, 5 rpm, 25.5 ± 0.5 °C)

775 ± 25 Pa.s

Solids:

90 ± 0.5 %

Shelf Life:

(3 - 20°C, may be refrigerated)

6 months

Flux:

Rosin mildly activated

TECHNICAL DATA

Test	Specification	Result
Silver Chromate Paper Test:	Bellcore TR-NWT-000078	No colour change
(Test For Halides)	IPC-TM-650	
Copper Mirror Test:	Bellcore TR-NVVT-000078	Type L IPC-TM-650
	(no breakthrough)	
Surface Insulation Resistance:	TR-NWT-000078	1.39 x 10 ¹² (after 96 hrs) 35°C/85% R.H

Visual examination - no evidence of Blue-Green corrosion and dendritic growth was observed on patterns

Electro-migration:	Bellcore TR-NWT-000078	85°C/85% R.H 2.10 x 10 ¹⁰ (after 500 hrs)
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Visual examination - no evidence of electro-migration on test samples

ESL Europe NC-3701-GE 0603-I

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See Caution and Disclaimer on next page.

TYPICAL PROPERTIES

(175 ± 25 µm wet print thickness)

Approximate Coverage:	12.5 cm ² / g
Printing Resolution: (line / space)	0.400 mm / 0.400 mm
Screen time:	> 8 hours
Tack Time:	> 30 hours
Packaging:	500 - 1000 grams in jars 500 - 1000 grams in cartridges

PROCESSING:

Screen Mesh, Emulsion:	80 S/S, 150 - 200 µm
Stencil Material, Thickness:	laser cut, nickel formed, etched S/S, 150 - 200 µm
Reflow Temperature:	Standard reflow profiles used for RMA pastes are appropriate. This paste is designed to be reflowed in air, but it may also be reflowed in N ₂ .
Flux Removal:	Not required. Note: If cleaning is desired; residue can be removed using standard flux solvent or saponifier cleaning methods.
Thinner:	ESL 401

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CAUTION: Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapours emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

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