



ESL EUROPE

SOLDER PASTES &
THICK-FILM MATERIALS

8 COMMERCIAL ROAD
READING, BERKSHIRE, RG2 0QZ, UK

T: +44 (0) 118 918 2400
F: +44 (0) 118 986 7331

www.solderpaste.co.uk

NO CLEAN SOLDER PASTE

NC-3701-GE SP

GE Flux Has Been Independently Tested To Meet The Bellcore Specification

NC-3701-GE SP 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 a 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 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:

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) |
| | Visual examination - no evidence of electro-migration on test samples | |

ESL Europe NC-3701-GE SP 0405-B

ESL Worldwide

U.S.A: ESL Electro-Science • 416 East Church Road • King of Prussia • PA 19406-2625 • U.S.A • Tel: +1 610-272-8000 • Fax: +1 610-272-6759 • Sales@ElectroScience.com

Japan: ESL Nippon • Sukegawa Bldg. • 6th floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: +81-3-3864-8521 • Fax: +81-3-3864-9270 • Sales@ESL-Nippon.co.jp

China: ESL China • Room #1707, Tower A, City Center of Shanghai • 100 Zunyi Road • Shanghai, China 200051 • Tel: +86-21-6237-0336 and 0337 • Fax: +86-21-6237-0338
ESLChina@sh.cnuninet.net

See Caution and Disclaimer on other side.

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 |

ESL Europe NC-3701-GE SP 0405-B

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.

DISCLAIMER: The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. ElectroScience assumes no liability for any injury, loss, or damage, direct or consequential, arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular use, before using it. User assumes all risk and liability whatsoever in connection with his intended use. ElectroScience's only obligation shall be to replace such quantity of the product proved defective.