ECOREL™ EASY 862-T4

INVENTEC PERFORMANCE CHEMICALS

Very Fine Pitch No-Clean Solder Paste

FEATURES

ECOREL™ EASY 862-T4 solder paste is developed to give very good wettability on different lead-free finishes, including OSP. Its large process window allows for good soldering of medium and large boards with a wide range of component sizes.
The solder joint is very shiny without graping even on the very small deposits.

ECOREL™ EASY 862-T4 is a Type 4 powder distribution solder paste. It exhibits excellent printing capabilities: an outstanding stencil life, an excellent abandon time and a long, steady tackiness.

SPECIFICATIONS

Alloy	Sn62Pb36Ag2
Powder size distribution (microns)	20 - 38
Melting point (°C)	178
Metal content (%)	89.5 +/- 0.5
Viscosity* (Pa.s 20°C)	850 - 1050
**Brookfield RVT - TF at 5 rpm.*	
Halogen content	No halogen

CHARACTERISTICS

Stencil life *(Paste life time in a continuous printing process)*	> 12 hours
Abandon time (for 0.5 mm pitch, 150 microns stencil) *(Maximum time between two prints with good print restart)*	> 8 hours
Steady tackiness	> 24 hours
Excellent wettability	
Very high first pass yield at ICT	

FUNCTIONAL TESTS	Results	Procedures
Flux Classification	REL0	ANSI/J-STD-004
	F-SW 32	DIN 8511
	113	ISO 9454
Solder balling test	pass	ANSI/J-STD-005
Copper mirror	pass	ANSI/J-STD-004
Chromate paper	pass	ANSI/J-STD-004
Copper corrosion	pass	ANSI/J-STD-004
Surface Insulation Resistance Ohms	pass	ANSI/J-STD-004
After 7 days		
85°C - 85 % RH - 50 Volts	$> 10^{10}$	
25°C - 65 % RH	$> 10^{12}$	

PACKAGING

Jar	250 g or 500 g
Cartridge	700 g or 1400 g
Proflow cassettes	800g

STORAGE & SHELF LIFE

To ensure the best product performance, the recommended storage temperature range is 5°C to 10°C. A shelf life of 9 months is achieved under these conditions. For cartridges, the shelf life is 6 months. For an optimal preservation, store cartridges in vertical position, tip downwards.

PROCESS PARAMETERS

Solder paste preparation

Before printing, it is essential to properly mix the solder paste, either manually with a spatula, or by doing several preliminary prints on the stencil.

Printing guideline

Apply solder paste on the stencil to form a roll of 1 to 2 cm of diameter all along the squeegee. This way, the solder paste will roll easily under the squeegees to offer excellent printing quality.

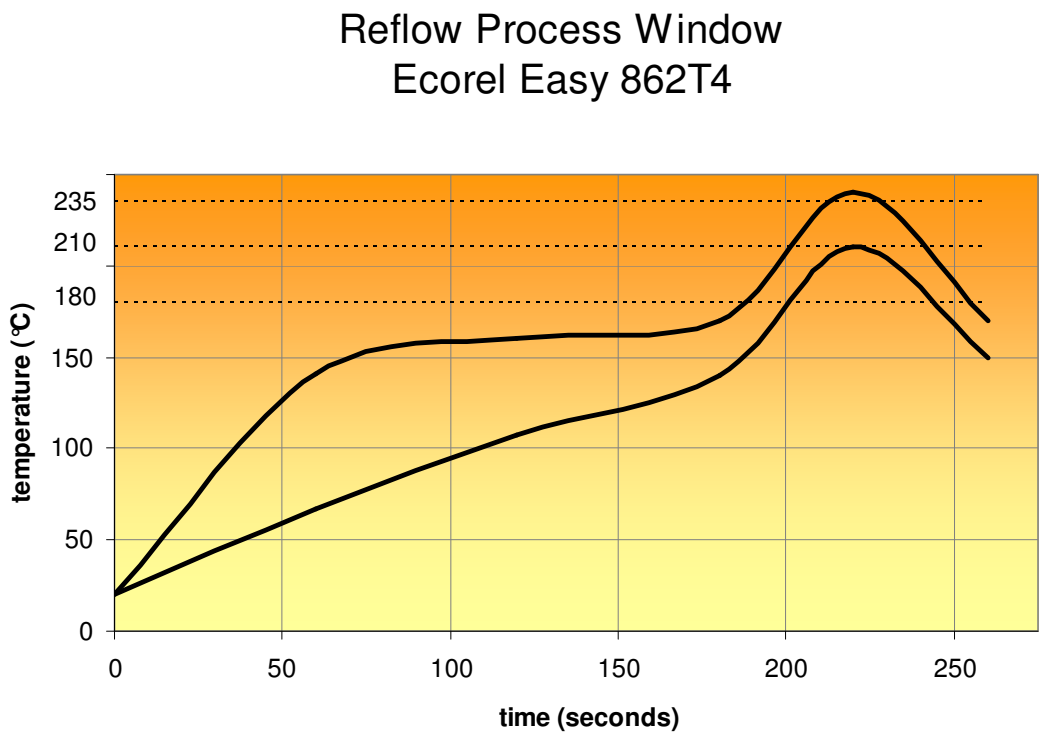
Printing speed:	20 to 100 mm/sec.
Minimum pitch:	0.3 mm
Pressure:	depends on printing speed and squeegees length:

Squeegee length	Printing Speed	Pressure
250 mm	50 mm/sec	6 Kg
250 mm	100 mm/sec	12 Kg

Reflow guideline

Linear preheating ramp rate is recommended, but a high density board may require a soak zone during preheating to stabilize the temperature over the circuit board before peak reflow.

Preheating ramp rate with linear preheating	0.8-1.2°C/s according the circuit board size and density
Preheating steps in case of a soak zone	- From 20 to 150°C: ramp rate 1-2°C/s - soak zone between 140-180°C for 60 to 120s
Peak ramp rate	1.0-2.0 °C/s
Peak temperature	210 - 235°C
Time above liquidus	50 - 120s



Cleaning

ECOREL™ EASY 862-T4 residue after reflow is non-corrosive and does not need to be removed to ensure the reliability of the PCB's. However, the residue is cleanable with a large range of cleaners: hydro-carbonated solvents, fluorinated solvents and detergent solutions including the INVENTEC cleaning solutions.

HSE

Contains lead. Do not handle without gloves.
No issues when used as recommended.
Please refer to Material Safety Data Sheet before use.

For end-of-life products, please refer to our **Solder Paste Ecoprogram** Service Data Sheet.

Although the conformity to ROHS 2002/95CE applies EQUIPMENT put on the market and not a component in particular, we warranty that this product contains less than 0.1% of mercury, lead, chromium VI, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and less than 0.01% for the cadmium, in accordance with the decision of The European Commission dated 18/08/2005, fixing the maximal concentration values.

This data is based on information that the manufacturer believe to be reliable and offered in good faith. In no event will INVENTEC be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

FPW.SB.10156 .000 -

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