

ECOREL™ EASY 802 M2



Low residue no-clean solder paste

FEATURES

ECOREL™ EASY 802M2 offers a good balance between wettability, printing capability and ability to withstand various thermal profiles.

ECOREL™ EASY 802M2 exhibits high printing speed, excellent abandon time and long steady tackiness.

It can withstand high thermal profiles, with and without nitrogen, leading to consistent and shiny solder joints on all standard finishes.

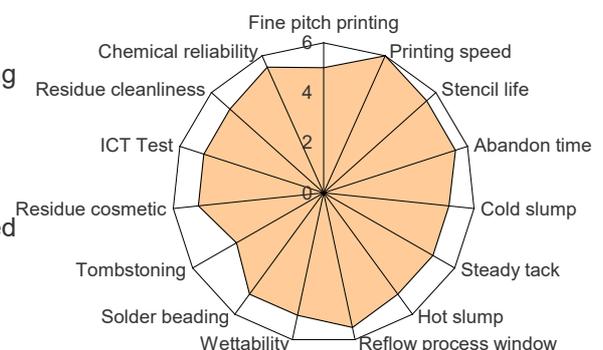
Residues after reflow are non-corrosive and do not need to be removed to ensure the reliability of the PCB's. However, those residues are easily cleanable with a large range of cleaners : hydro-carbonated solvents, halogenated solvents and detergent solutions including the INVENTEC cleaning solutions.

PROPERTIES

ECOREL EASY	802 M2
Alloy	Sn62PbAg2
Powder size distribution (microns)	25-45
Melting point	178
Metal content (%)	89,5 ± 0.5
Residue after reflow soldering (%)	47 – 54
Halogen content	no halogen
Viscosity* (Pa.s at 25°C) <i>* Spiral pump Malcom – 10 RPM</i>	160 Typical value

CHARACTERISTICS

Long stencil life: more than 10 hrs
 Abandon time on the stencil more than 4 hrs with excellent print restart
 Good wettability on all finishes
 Stable tack: more than 12 hrs at 22°C between printing and component placement
 No slump out by preheat
 Slight yellow residue after reflow, ate probe compatible
 No halogen
 High SIR – No residue deterioration during accelerated ageing



FUNCTIONAL TESTS	Results	Procedures
Flux classification	L 0 113	ANSI/J-STD-004 ISO 9454
Solderballing test	class 1	ANSI/J-STD-004
Copper mirror	pass	ANSI/J-STD-004
Copper corrosion	pass	ANSI/J-STD-004
S.I.R. Ohms	pass	ANSI/J-STD-004
After 21 days		
85°C - 85 % RH - 50 Volts	> 10 ⁹	
End of cycle		
20°C – 65°C RH	> 10 ¹⁰	

PACKAGING

Jar	250 g or 500 g
Cartridge	700 g or 1400 g
PROFLOW cassette	800 g

STORAGE & SHELF LIFE

To ensure the best product performance, the recommended storage temperature range is 0°C to 10°C. A shelf life of 12 months is achieved under these conditions. For cartridges and cassettes, shelf life is 9 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 on the stencil solder paste to form a roll of 1 to 2 cm of diameter all along the squeegee (about 100g of paste per 10 cm squeegee length). This way, the solder paste will roll easily under the squeegees to offer excellent printing quality.

Printing speed : 20 to 150 mm/sec.
 Minimum pitch : 0.3 mm
 Pressure : depends on printing speed

Examples of printing speed according to the pressure:

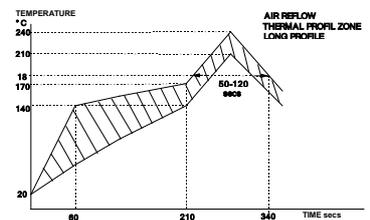
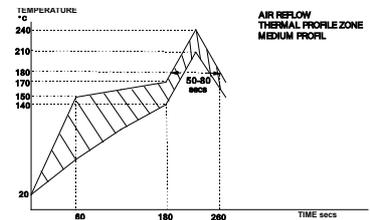
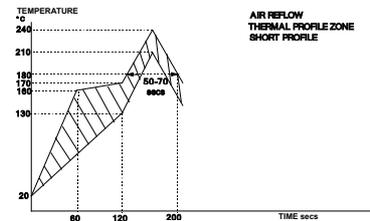
Squeegee length	Printing Speed	Pressure
250	50 mm/sec	4 kg
250	100 mm/sec	9 kg
400	50 mm/sec	6 kg
400	100 mm/sec	11 kg

Reflow guideline

The graph beside indicates, the optimal thermal profile zone according to PCB and component thermal mass.

A linear preheating ramp rate is preferable to a too long soak, in order to avoid solderbeading and to get a shiny joint with a uniform residue distribution.

Nitrogen atmosphere improves wettability inside a larger reflow process window.



Cleaning

ECOREL™ EASY 802M2 residue after reflow can be removed with a very large range of cleaning solutions, such as detergents, hydrocarbonated solvents or fluorinated solvents, including the INVENTEC cleaning solutions.

PROCESS	Immersion or spray system (water based solution)	Immersion system (solvent based solution)	Manual use (Solvent based solution)
INVENTEC SOLUTION	PROMOCLEAN™ DISPER 605 (as packaged, pH=11.9)	HFE + co-solvents : TOPKLEAN™ EL-20A TOPKLEAN™ EL-20R Under vacuum system : TOPKLEAN™ EL-20D Fast evaporation azeotropic solvent : PROMOSOLV™ 70ES	TOPKLEAN™ EL-10F QUICKSOLV™ DEF 90 TOPKLEAN™ EL-60

HSE

Contains lead. Use in well-ventilated areas. Safety glasses and gloves should always be worn when handling the flux.

No issues when used as recommended. Please refer to Material Safety Data Sheet before use.

INVENTEC Material Safety Data sheets can be found at www.quickfds.com

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.

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