# ECOREL<sup>™</sup> FREE JP20







# Lead free no-clean solder paste Halogen-Free – For JET PRINTERS

#### **FEATURES**

**ECOREL**<sup>™</sup> **FREE JP20** is a no-clean lead-free solder paste compatible with stencil-free printers. It was developed to deliver reproducible volumes of solder paste onto the circuit boards (minimum dot diameter 0.33 mm). Its large process window allows for good soldering of medium and large boards with a wide range of component sizes.

After soldering, the flux residue remaining on the PCB presents no corrosion risk and does not have to be removed by a cleaning operation. However, if cleaning is required, the residue removal is excellent with a wide range of cleaners as detergents and solvents.

# **SPECIFICATIONS**

Alloy (available with others Ag content)
Powder size distribution (microns)
Melting point (°C)
Metal content (%)
Halogen content
Viscosity
Post reflow residues

 $\begin{array}{l} SnAg3Cu0.5 \\ 15-25~\mu m \\ 217 \\ 85\pm0.5 \\ No~Halogen \\ suitable~for~jetprinters \\ approximately~5\%~by~w/w \end{array}$ 

# **CHARACTERISTICS**

FUNCTIONAL TESTS	Results	Procedures
Flux Classification	REL0	ANSI/J-STD-004
	F-SW 33	DIN 8511
	123	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	
25°C - 65 % RH	> 10 <sup>12</sup>	

#### **PACKAGING TYPE**

Syringes 100 g

For an optimal preservation, store syringes in vertical position, tip downwards.

#### STORAGE & SHELF LIFE

To ensure the best product performance, the recommended storage temperature range is from 5°C to 10°C. A shelf life of 6 months is achieved under these conditions.

# **REFLOW GUIDELINE**

Nitrogen atmosphere allows excellent wettability inside a large reflow process window. Linear preheating ramp rate is recommended. But high density board may require a soak zone during preheating to stabilize the temperature over the circuit board before peak reflow.





#### **CLEANING**

**ECOREL**<sup>™</sup> **FREE JP20** residue after reflow can be easily removed with a wide 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 <sup>™</sup> DISPER 605 (as packaged, pH=11.9) PROMOCLEAN <sup>™</sup> DISPER 607	HFE + co-solvents : TOPKLEAN <sup>TM</sup> EL-20A TOPKLEAN <sup>TM</sup> EL-20R Under vacuum system : TOPKLEAN <sup>TM</sup> EL-20D Fast evaporation azeotropic solvent : PROMOSOLV <sup>TM</sup> 70ES	TOPKLEAN <sup>™</sup> EL-10F QUICKSOLV <sup>™</sup> DEF 90 TOPKLEAN <sup>™</sup> EL-60

### **HSE**

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

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.

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