

# ECOFREC™ 205



## Lead Free Soldering, No-Clean Flux High Wetting Performance

### BENEFITS

**ECOFREC™ 205** provides excellent soldering in lead-free as well in leaded, both in wave and in selective wave soldering applications.

- Excellent through-hole wetting
- No microballing
- Compatible with different PCB lead-free finishing as Ni/Au, Sn, Ag, HAL and OSP, even after prior heat cycle

### SPECIFICATIONS

Appearance	Colorless liquid
Density 20°C (g/cm <sup>3</sup> )	0.795 – 0.811
Solid content (%)	4.2
Acid index (mg KOH/g)	33 - 37
Halogen content	No halogen
Flash point	16°C

### CHARACTERISTICS

The activation system of **ECOFREC™ 205** is eliminated after wave soldering.

- Free of halide (Fluoride, Chloride, Bromide) and halogen
- No visible residue on printed circuit boards

Standards test	Results	Procedures
Flux classification	ORL0	ANSI/J-STD-004
SIR (IPC)	Pass	ANSI/J-STD-004
Copper mirror	Pass	ANSI/J-STD-004
Chromate paper	Pass	ANSI/J-STD-004

### PROCESS PARAMETERS

**ECOFREC™ 205** must be applied by spray, brush, foam or dip process.

The temperatures obtained during preheating and solder wave will eliminate the residue to give good cosmetics.

## Process Guideline

Parameters	Recommended Values
Flux Amount Deposit	40-80 g/m <sup>2</sup>
Preheating PCB Top Side	120°C maximum
PCB Bottom Side	145°C maximum
Conveyor Speed	0.8 – 1.8 m/mn
Conveyor angle	4 - 7° (7° typical)
Chip Wave Contact Time	0.5 – 1 sec
Main Wave Contact Time	2.5 – 4 sec
Solder bath Temperature	
- SnAgCu	260 – 270°C
- SnPb	245 – 255°C

This guideline is the result of laboratory test and process optimisation at production lines. This information's goal is mainly to make the flux implementation easier. However, the actual settings may vary depending on the actual products being run, the equipments, components and boards being used, etc... The optimum parameters may be slightly different from the table above.

## Monitoring

If ECOFREC™ 205 is applied by spray in closed systems, no solvent evaporation should occur. So ECOFREC™ 205 properties should not change during its use, then flux control is unnecessary.

## PACKAGING, STORAGE & SHELF LIFE

To ensure the best product performance, the recommended storage temperature range is room temperature.

Plastic drum	20L	24 months
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## HSE

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](http://www.quickfds.com)

***Although the conformity to ROHS 2011/65/EU 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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