Product Information

FELDER ISO-Cream® "Clear", Pb93Sn5Ag2

**No-clean solder paste for an excellent wetting on all well-known surfaces.
Solder alloy Pb93Sn5Ag2 acc. EN ISO 9453,
Flux type1231 acc. to DIN EN ISO 9454-1, REL0 acc. to DIN EN 61190-1-1 resp. IPC J-STD-004B
Metal powder content 88 % - 90 %,**

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**The solder alloy Pb93Sn5Ag2 is covered by the exemption 7a of annex III in directive 2011/65/EU (RoHS II):
“Lead in solders with a high melting point (i.e. solders based on lead with a content of 85 % lead by weight).”**

Description

The **FELDER Reflow Solder ISO-Cream® "Clear" Pb93Sn5Ag2** is a homogenous, ready-made, odourless mixture of metal powder, binding agents, solvents, fluxes as well as thixotropic agents.

This paste has excellent wetting properties and is ideal for soldering high-temperature-resistant assemblies up to 200 °C. The flux residues have a very high surface resistance and are non-corrosive.

ISO-Cream® "Clear" is insensitive to humidity and temperature. It shows no tendencies to formation of solder balling on chip-resistors and capacitors.

ISO-Cream® "Clear" has a very strong wet bonding force and is also suitable for assembly machines with very high accelerations/decelerations. The paste has a very long stencil time and can be used in printing machines with a temperature control unit (very strong ventilation). The rheology of this paste has been optimized to achieve excellent printing results on narrow openings as well as a very good first print after a break. Laboratory tests have shown that the first print after a break of 6 hours was unobjectionable.

Properties and Advantages

Alloy (DIN EN ISO 9453)	Melting range	Metal powder content	Viscosity*
Pb93Sn5Ag2	296 - 301° C	88 - 90 %	300.000 - 900.000 mPas

* Viscosity measured with Brookfield RVT, Shaft TF 5 U/min, 25° C

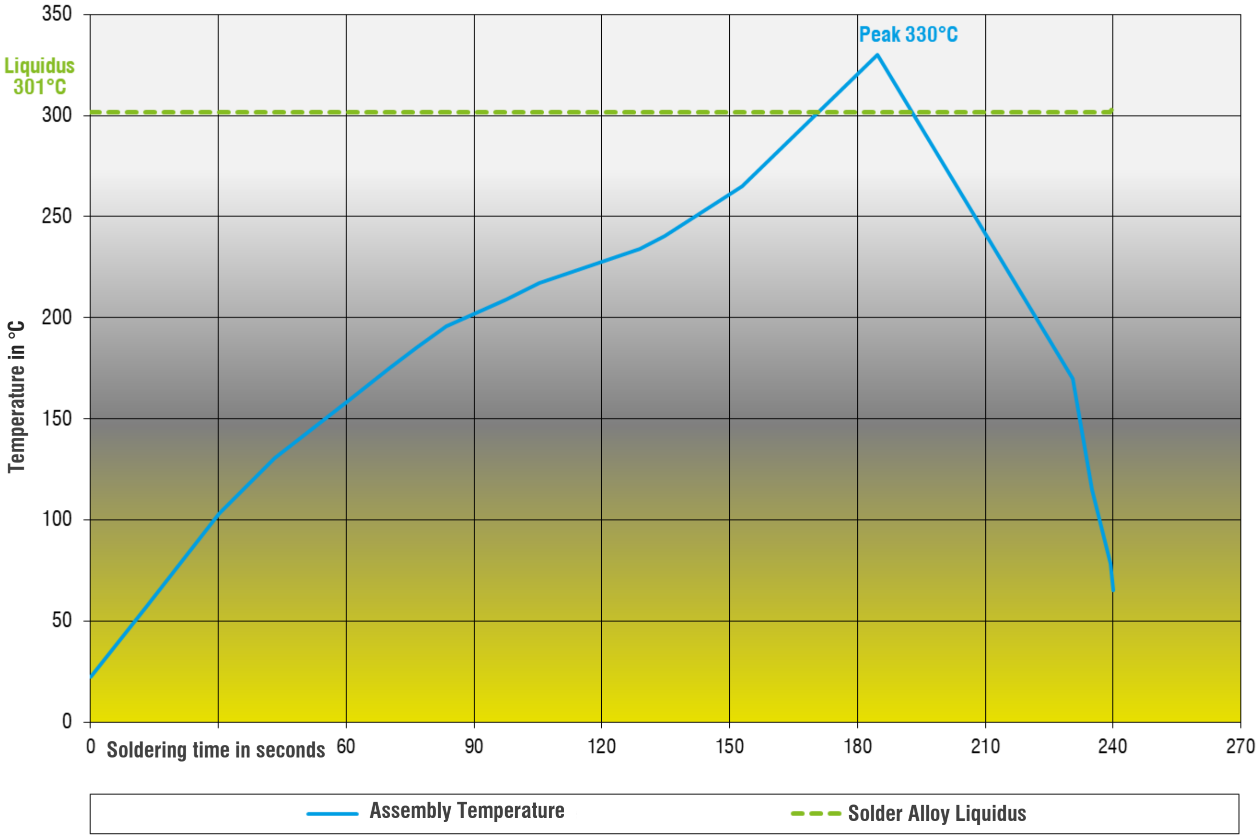
Grain sizes	:	3 = Fine-Pitch 25 - 45 μm
Powder form	:	ball-shaped
Flux type	:	1231 - DIN EN ISO 9454-1, REL0 - DIN EN 61190-1-3 / IPC J-STD-004B
Stencil strength:		Standard = 150 – 200 μm Fine-Pitch = 100 – 150 μm

- for high-temperature-resistant assemblies up to 200 °C
- colourless flux residues
- little content of volatiles ⇨longer cleaning intervals of the reflow oven
- excellent printing quality ⇨ high stencil time of at least 48 hours
- unobjectionable soldering results with all common soldering profiles
- insensitive to environmental influences
- stability of the viscosity also on print breaks
- ideally suitable for vapour phase soldering

Application instructions

- Before opening the container, the paste should have reached room temperature, so that there will be no condensation on the paste.
- Stir the solder paste well before use (we recommend using automatic paste mixer) .
- **FELDER ISO-Cream® "Clear"**keeps its adhesive consistency for a long period which allows trouble free assembly of the circuit even after 48 hours. The exact period depends on the ambient conditions, size and form of the components as well as on the accelerations / decelerations on the line.
- The peak temperature depends on the thermal capacity of the components. On request we can provide you with our recommended solder profile.
- **FELDER ISO-Cream® "Clear"**can be soldered under air, inert gas or in vapor phase.
- Used solder paste (e.g. rest on the stencil) should not be replaced into the jar because the durability of the unused paste will be reduced essentially. Used solder paste should be kept separately and if necessary, should be mixed with fresh solder paste directly before use.

Recommended Reflow-Profile



Washing

Since the paste reaches the highest “no-clean level”, the flux residues can remain on the soldered circuits and do not have to be washed away. Nevertheless, the residues can be removed in conventional washing plants.

Storage advice

Store in tightly closed containers protected from humidity, sunlight and heat.
FELDER ISO-Cream® "Clear" can be stocked at least 12 months (storage at constant temperature of 5 - 20º C).

Delivery Forms

Jars:	0,250 and 0,500 kg
Cartridges:	6 and 12 oz Semco®
Cassettes:	ProFlow™
Dispensing cartridges:	5, 10 and 30 ccm