Product Information

FELDER ISO-Cream®"Clear", Pb93Sn5Ag2

Odourless no-clean solder paste for an excellent wetting on all well-known surfaces.
Metal powder content 88 % - 90 %, Pb93Sn5Ag2, DIN EN ISO 9453:2014 (in compliance with RoHS),
Flux 1231 according to DIN EN ISO 9454.1, REL0 according to DIN EN 61190 resp. IPC J-STD-004B

Item-No. : 23065200....

The mentioned solder alloy is covered by the exemption mentioned in point 7a of annex III to directive 2011/65/EU (RoHS):
"Lead in solders with a high melting point (i.e. solders based on lead with a content of at least 85 % lead by weight)."

Description

The solder paste **FELDER** ISO-Cream®**"Clear"** 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 ideally suited for the soldering of difficult to solder areas. It is possible to use PCBs and components of different kind – the solder result is always optimal. The flux residues show a very high surface resistance.

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

FELDER 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. **FELDER** ISO-Cream®**"Clear"** is excellently suitable for vapour phase applications.

Properties

Alloy (DIN EN ISO 9453:2014)	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:	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 Super Fine-Pitch = 80 – 125 µm

Organic Carrier Materials

The composition of **FELDER** ISO-Cream®"**Clear**" solder paste largely excludes an encrustation when stocked properly and assures the following rheological properties:

- excellent printability
- constant viscosity

Advantages

- colourless flux residues
- little content of volatiles ⇨longer cleaning intervals of the reflow oven
- real no-clean quality
- 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 Information

- Before opening the container, the paste should have reached room temperature, so that there will be no condensation on the paste.
- Stir **FELDER** ISO-Cream®"**Clear**" well before use.
- **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 or inert gas.
- 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.

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