Product Information

FELDER-ISO-Cream® "EL 42/58", Bi58Sn42

Odourless No-Clean Solder paste for solderings of temperature sensitive components
Flux, EN ISO 9454.1- 1122, EN 61190-1-3 respectively IPC J-STD-004B - ROL1
Metal powder content 80 % - 89 %

Art.-Nr.: 23233242....

Description

The solder paste ISO-**Cream**® **"EL 42/58"** is a homogenous, ready-made and odourless mixture made of metal powder, bonding agents, solvents, fluxes and thixotropic agents.

This paste has excellent wetting qualities and is ideally suited for the soldering of temperature sensitive components. Variations of the solderability of joint surfaces and components will be tolerated without negative effect on the soldering result. The flux residues show a very high surface resistance.

The solder paste ISO-**Cream**® **"EL 42/58"** is insensitive to humidity and temperature. It shows no tendency to solder-ball formation on chip-resistors and capacitors.

FELDER ISO-**Cream**® **"EL 42/58"** has a very strong wet bonding force and is also suitable for machines with very high accelerations/decelerations. It 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 in order to achieve excellent printing qualities on narrow openings as well as a good first print after a break. Laboratory tests have shown that the first print after a break of 2 hours was unobjectionable. **FELDER** ISO-**Cream**® **"EL 42/58"** is excellently suitable for dispenser application, since the paste shows a very good contour stability also at low viscosities.

Properties

Alloy acc. to EN ISO 9453	Melting point	Metal powder form	Metal powder content	Viscosity
Bi58Sn42	138° C	ball-shaped	80 - 89%	250.000 - 900.000 mPas

Grain size acc. to IPC:
3 = Standard 25 - 45 µm
4 = Fine-Pitch 20 - 38 µm
5 = Ultra-Fine-Pitch 10 - 25 µm

Flux: EN ISO 9454 - 1122, EN 61190-1-3 respectively IPC J-STD-004B, ROL1

Stencil strength:
Standard = 150 - 200 µm
Fine-Pitch = 100 - 150 µm
Ultra-Fine Pitch = 80 - 120 µm

Organic Carrier Materials

The composition of ISO-**Cream**® **"EL 42/58"** – solder paste largely excludes an encrustation when stocked properly and assures the following rheological properties:

- excellent printability
- constant viscosity
- optimally suitable for dispenser application

Advantages

- solder temperatures are gentle to components
- little 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 24 hours
- unobjectionable soldering results with all common solder profiles
- stability of the viscosity also on print breaks

Processing Advices

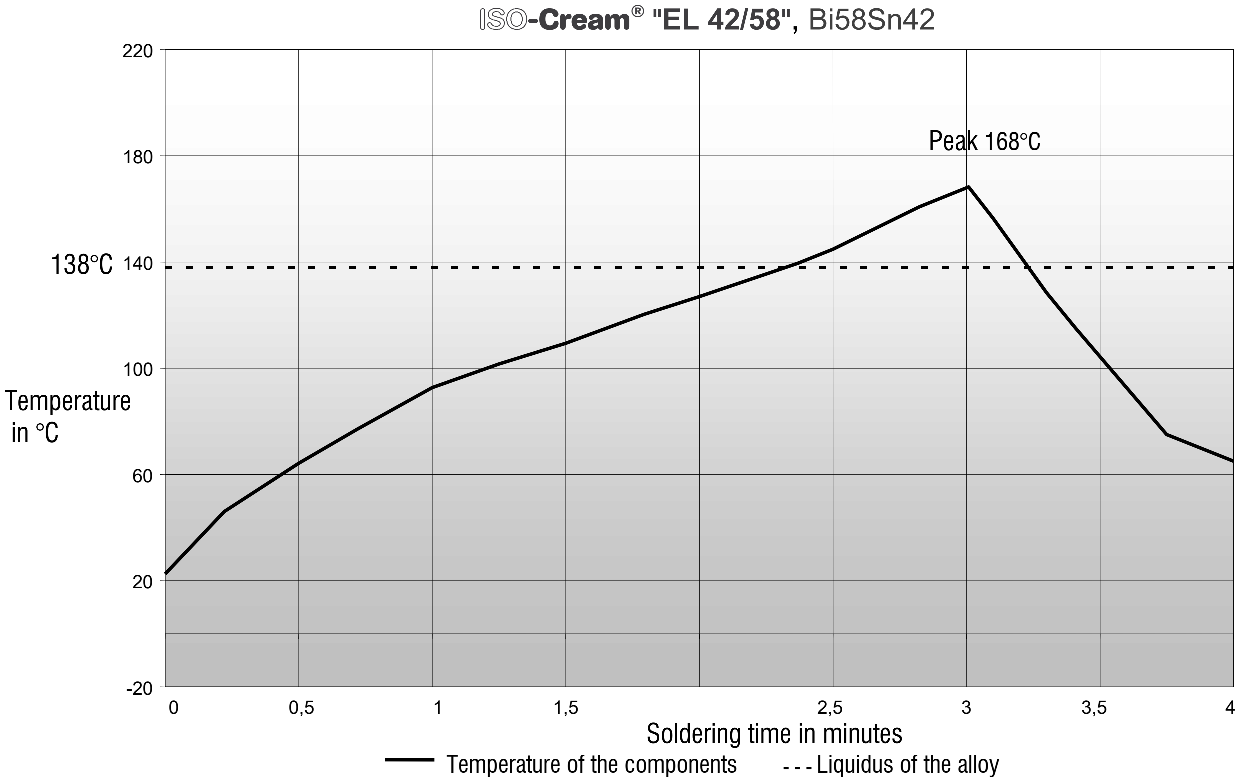
- Before opening the container, the paste should have reached room temperature, so that there will be no condensation on the paste.
- Stir **FELDER** ISO-**Cream**® **"EL 42/58"** well before use.
- **FELDER** ISO-**Cream**® **"EL 42/58"** keeps its adhesive consistency for a long period which allows a trouble-free assembly of the circuit even after 2 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.
- **FELDER** ISO-**Cream**® **"EL 42/58"** can be soldered under air or inert gas.
- Used solder paste (e. g. rests 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 solder paste reaches the highest "no-clean-level" the flux residues may remain on the soldered circuits and do not have to be washed away. Nevertheless, the residues also can be removed in conventional washing plants.

Status: 10/22

Recommended Reflow Profile



Delivery Forms

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

Storage Advice

Store in tightly closed containers protected from humidity, insolation and heat. **FELDER ISO-Cream® "EL 42/58"** is storable for at least 4 months (storage at constant temperature of 5 - 15° C).

Status: 10/22