Product Information

FELDER-ISO-Cream® "EL 3202" – Lead containing

Odourless no-clean solder paste for an excellent wetting on all well-known surfaces.
Flux, DIN EN 29454.1, 1.1.3.C, DIN EN 61190-1-3, ROL1, IPC J-STD-004B, ROL1
Metal powder content 80 % - 90 %

Item-No. : 23..3202...

Description

The solder paste ISO-Cream® "EL 3202" 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® "EL 3202" is insensitive to humidity and temperature. It shows no tendencies to formation of solder balling on chip-resistors and capacitors.

FELDER-ISO-Cream® "EL 3202" 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 also 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 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 6 hours was unobjectionable.
FELDER-ISO-Cream® "EL 3202" is **excellently suitable for vapour phase applications**.

Properties

Alloy	DIN EN ISO 9453:2014	Melting point / Melting area	Metal content
Sn62Pb36Ag2	Sn62Pb36Ag2	179° C	80 - 90 %
Sn62Pb36,4Ag0,4Sb0,2*	nicht genormt	179 - 186° C	
Sn63Pb37	Sn63Pb37E	183° C	80 - 90 %
Pb93,5Sn5Ag1,5	Pb93Sn5Ag2	296 - 301° C	80 - 90 %

* Anti-Tombstoning alloy

Grain sizes:	2 = Standard 45 - 75 µm 3 = Fine-Pitch 25 - 45 µm 4 = Fine-Pitch 20 - 38 µm 5 = Ultrafine-Pitch 15 - 25 µm
Viscosities:	300.000 – 900.000 mPas
Metal powder form:	ball-shaped
Flux:	DIN EN 29454, 1.1.3.C, DIN EN 61190-1-3, ROL1, IPC J-STD-004B, ROL1
Stencil strength:	Standard = 150 - 200 µm Fine-Pitch = 100 - 150 µm Ultrafine-Pitch = 80 - 125 µm

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FELDER ISO-Cream EL 3202 Sn62Pb36Ag2 technical data		
Category	Results	Objective/ Standard
Flux content	10 %	10±1%
Density of the paste	4,3 g/cm³	-
Flux residues	clear, slightly yellowish, not sticky	-
Viscosity acc. to Brookfield	750 - 900 Pas (RVT Shaft TF, 5u/min, 25°C)	DIN EN 61189-5 IPC-JSTD-005
Stencil time	> 8 h	>8 h
Adhesiveness	48 h	48 h
Slump (Stencil 200µ)	25° C, 20 min: Pitch 0,20 free	DIN EN 61189-5 IPC-JSTD-005
	150° C, 15 min: Pitch 0,30 free	
Corrosiveness	Copper-Mirror-Test: passed (L)	DIN EN 61189-6 IPC-JSTD-005
Halide content	0,12 %	DIN EN 61189-6 IPC-JSTD-005
Flux type	ROL1	DIN EN 61190-1-3 IPC JSTD-004B
Surface resistance SIR	40° C/93%RF: 1,23E09 96h	DIN EN 61189-5 IPC-JSTD-005
Durability	6 months	-

Organic Carrier Materials

The composition of **FELDER-ISO-Cream® "EL 3202"** 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
- excellently suitable for vapour phase application

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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® "EL 3202"** well before use.
- **FELDER-ISO-Cream® "EL 3202"** keeps its adhesive consistency for a long period which allows a 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® "EL 3202"** 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

Store in tightly closed containers protected from humidity, sunlight and heat.
FELDER-ISO-Cream® "EL 3202" can be stocked at least 6 months (storage at constant temperature of 5 - 15° C).

Delivery Forms

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

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