FELDER seit 1979 LÖTTECHNIK

Product information

Solar-Soft solder paste „FK-115“

containing metal powder, leadfree soft solder paste for soldering of flat plate solar collector
fluxtype according to DIN EN 29454.1, 1.2.3.C
metal according to DIN EN ISO 9453, S-Sn97Cu3

Art.-Nr.: 22049788…

Description

On a basis of our Solar–Soft solder paste „FK-114“, for soft soldering of copper tubes on a coated absorber copper sheet the new solar-soft solder „FK-115“ was further developed. The outgassing of the flux residues were reduced to a minimum. The solder paste is 100 % halide-free, so that the coating of the copper sheet will not be damaged through the halides.

Properties

The Solar-Soft solder paste „FK-114“ was tested and certified!

SPF Solartechnik Prüfung Forschung

Summary of the test report dated 16.01.2002:

SUNSELECT					TINOX				
$\alpha_{AM1,5}$	ε_{373K}	PC	Vis*	PF**	α	ε	PC	Vis*	PF**
0.919	0.027	0.009	++	***Pass***	0.925	0.024	-0.013	+	***Pass***
0.910	0.036	0.011	++	***Pass***	0.949	0.021	-0.014	+	***Pass***

PC: „Performance Criterion“ (Soll = max. 0,02)
* visual appearance, subjective visual judgement of ++ up to – respectively ✞ (unchanged up to destroyed)
** PF: „Pass“ oder „Fail“: Judgementof the pc according rest description respectively ✞ for destroyed

Standard description

Fluxtype according to DIN EN 29454.1 - 1.2.3.C
Metal according to DIN EN ISO 9453:2006, S-Sn97Cu3 (other alloy on request)
Melting range: 227 °C - 310 °C.

Metal content

Standard: 88-91 %, (other metal contents on request)

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Condition

Paste-like – adjusted on an optimal dosage

Viscosity

330 Pas at 25 °C
Viscosity change: approx. 3 % per °C

Durability

6 months at 5-15 °C
4 months at 20 °C

Do not store over 30 °C!

Application quantity

With 8 mm copper tubes we recommend depending on dosage ability of the units 3 g up to 8 g per current meter copper tube

Solder temperature

275 – 300°C
We recommend an as possible high working temperature, which is dependent on the temperature resistance of the absorber coating.

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Soldering time

The soldering process consists of three phases:
1. heating time
2. soldering phase
3. cooling phase

The actual soldering phase should last at least 4 minutes and 10 minutes at the most.

We also recommend depending on constancy of the absorber coating a long as possible soldering phase.

The heat up phase and the cooling phase is different depending to the oven type.

The whole process should last ca.15 – 20 minutes.

Flux residues

The flux residues do not create corrosion and may therefore remain on the soldering joint.

Chemical composition

Flux on basis of resins and synthetic resins with activating additives

Form of delivery

1,0 kg euro-cartridges,
10,0 kg plastic-bucket,
25,0 kg tin-bucket

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