EMIL OTTO

FLUX PASTE
FLUX GEL
REWORK PASTE
ALUSOL

FLUX- AND SURFACE TECHNOLOGY

PRODUCTS FOR THE ELECTRONIC INDUSTRY

Flux paste

The flux pastes are electronic soldering fluxes. The pastes can be used for all kinds of manual- and repair soldering. The method of application is dependent on the process. With manual soldering the paste can be dispensed directly with the syringe. Furthermore, the flux paste is suitable for dip tinning as well as special applications. The flux paste can be processed using a hot air- and soldering iron, but also with a soldering tip.

FP-260

Cat.-No. 2998

No clean flux paste based on synthetic resins, (di)carboxylic acids, halogen-free
(WEE/RoHS conformant)
Type 1.2.3.1 // RELO acc. ISO 9454 // DIN EN 61 190-1-1

The soldering flux paste, FP-260, has been developed for repair soldering. In addition, the soldering flux paste is suitable for dip tinning as well as special applications. FP-260 is characterized by a high activity and good wetting and spreading properties. Due to these properties, the paste should be applied sparingly. Application takes place via a dosing syringe with a plastic tip. This enables the accurate dosing and positioning of the paste. The processing of the soldering flux paste can be done with the aid of hot air- or soldering irons.

Customer added value:
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Exact dosage
- No separation
- Flux residues visible under UV light
- VOC-free

Technical Data:

Application area:	Manual-, repair- and dip soldering, special applications, suitable for SnPb and Pb-free alloys
Appearance/smell:	pasty, bright yellow, waxy, mild acidic
Solids content:	very high Gew.-%
Density at 20 °C:	0.9–1.0 g/ml
Activators:	synthetic resins, di-carboxylic acids, halogenfree
Flash point:	>80 °C
Viscosity (DIN EN ISO 3219):	68
Viscosity (DIN 51810-1):	start: 3.783 / end: 2.367
Durability:	12 months

Packaging units: syringes with 5 or 10 ml, cartridge

The picture may differ from the original product.

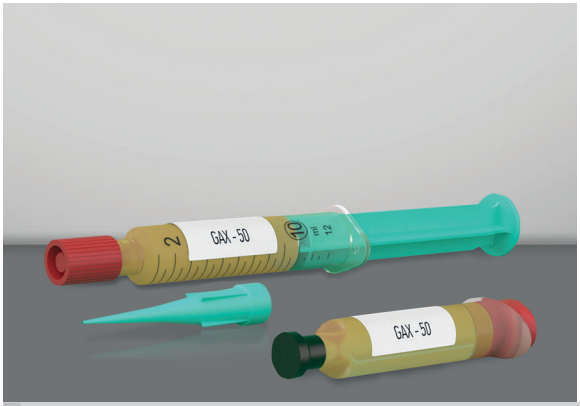
GAX-50

Cat.-No. 2999

No clean flux paste based on synthetic resins, (di)carboxylic acids, halogen-free
(WEE/RoHS conformant)
Type 1.2.3.1 // RELO acc. ISO 9454 // DIN EN 61 190-1-1

The soldering flux paste, GAX-50, has been developed for repair soldering. In addition, the soldering flux paste is suitable for dip tinning as well as special applications. GAX-50 is characterized by a high activity and good wetting and spreading properties. Due to these properties, the paste should be applied sparingly. Application takes place via a dosing syringe with a plastic tip. This enables the accurate dosing and positioning of the paste. The processing of the soldering flux paste can be done with the aid of hot air- or soldering irons.

Customer added value:
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Exact dosage
- No separation
- VOC-free



Technical Data:

Application area:	Manual-, repair- and dip soldering, special applications, suitable for SnPb and Pb-free alloys
Appearance/smell:	pasty, beige/amber, opaque, waxy, mild
Solids content:	very high Gew.-%
Density at 20 °C:	0.9–1.0 g/ml
Activators:	synthetic resins, di-carboxylic acids, halogenfree
Flash point:	>80 °C
Viscosity (DIN EN ISO 3219):	82
Viscosity (DIN 51810-1):	start: 8.816 / end: 6.571
Durability:	12 months

Packaging units: syringes with 5 or 10 ml, cartridge

The picture may differ from the original product.

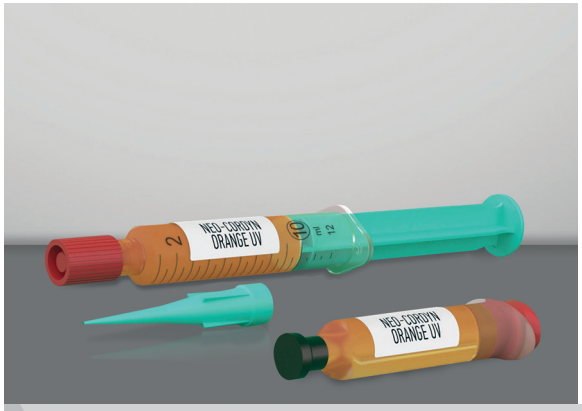
NEO-CORDYN Orange UV

Cat.-No. 2992

No clean flux paste based on synthetic resins, halogen-free (WEE/RoHS conformant)
Type 1.2.3.1 // RELO acc. ISO 9454 // DIN EN 61 190-1-1

The soldering flux paste NEO-CORDYN Orange UV is a electronic soldering flux. It can be used for all types of manual and repair soldering. The method of application is dependent on the process, with manual soldering it can be dosed directly with the syringe. In addition, the soldering flux paste is suitable for dip tinning as well as special applications. The processing of the soldering flux paste can be done with the aid of hot air- or soldering irons.

Customer added value:
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, high activity over a long interval)
- Excact dosage
- No separation
- Flux residues visible under UV light
- VOC-free



Technical Data:

Application area:	Manual-, repair- and dip soldering, special applications, suitable for SnPb and Pb-free alloys
Appearance/smell:	pasty, bright orange/red (UV light), mild
Solids content:	solid substances over 30 Gew.-%
Density at 20 °C:	0.9–1.0 g/ml
Activators:	synthetic resins, carboxylic acids, halogenfree
Flash point:	>80 °C
Viscosity (DIN EN ISO 3219):	27
Viscosity (DIN 51810-1):	start: 3.460 / end: 2.733
Durability:	12 months

Packaging units: syringes with 5 or 10 ml, cartridge

The picture may differ from the original product.

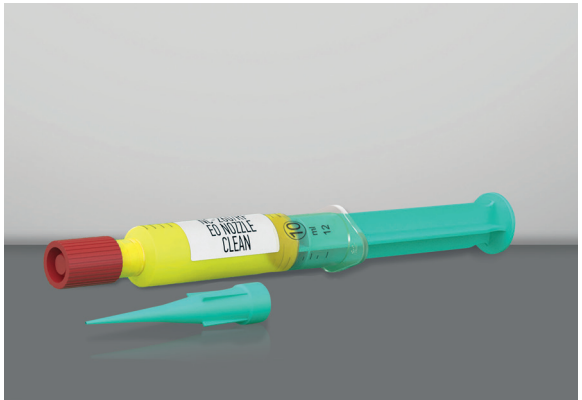
NC-260/RF EO Nozzle Clean

Cat.-No. 2995

No clean special paste for activation and cleaning of mini-waves
ISO-9454:1.2.3.C

The NC-260/RF EO Nozzle Clean is a special paste for cleaning of mini-wave-noozles.

Customer added value:
- Very good cleaning effects for scaling and contamination of non-coated soldering nozzles of selective soldering systems
- Broad processing window (very high thermal stability, very high activity over a long interval)
- Excact dosage
- No separation
- Flux residues visible under UV light



Technical Data:

Application area:	Special paste for the activation of non-coated solder nozzles
Appearance/smell:	bright yellow, waxy, synthetic
Density at 20 °C:	0.9–1.0 g/cm³
Consistency:	pasty
Substances:	resin, dicarboxylic acids, additives, paste additives, UV-additives
Durability:	12 months

Packaging units: syringes with 5 or 10 ml, cartridge

The picture may differ from the original product.

EO-FP-001

Cat.-No. 2052

No clean flux paste based on inorganic halogens, zinc free
(WEEE/RoHS conformant)
Type 2.2.2.C // M1 acc. ISO 9454 // DIN EN 61 190-1-1

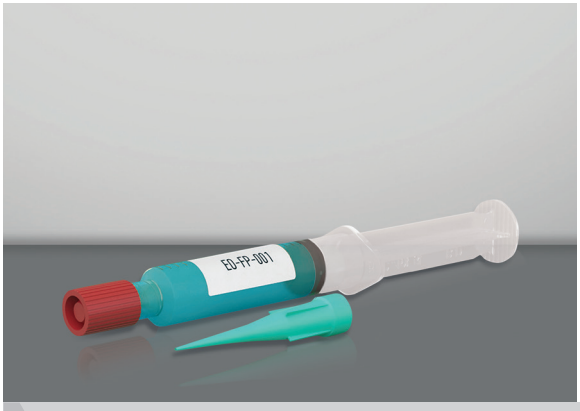
The soldering flux paste, EO-FP-001, has been developed for repair soldering. In addition, the soldering flux paste is suitable for dip tinning as well as special applications. EO-FP-001 is characterized by a high activity and good wetting and spreading properties. Due to these properties, the paste should be applied sparingly. Application takes place via a dosing syringe with a plastic tip. This enables the accurate dosing and positioning of the paste. The processing of the soldering flux paste can be done with the aid of hot air- or soldering irons.

Customer added value:

- Excellent soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, very good activity over long interval 150°C – 260°C)
- Low corrosion tendency despite very strong activation
- Contains no free acid und no resin
- No curing or crystallization effect
- Exact, drip-free dosage
- Minimal smoke and odour generation
- Flux residues visible under UV light
- VOC-free

Technical Data:

Aplication area:	Manual-, repair- and dip soldering, special applications, suitable for SnPb and Pb-free alloys
Appearance/smell:	pasty, blue/turquoise, mild
Solids content:	very high Gew.-%
Density at 20 °C:	0,9–1,0 g/ml
Activators:	inorganic halogens
Flash point:	>80 °C
Durability:	12 months



Packaging units: syringes with 10 ml

The picture may differ from the original product.

EO-FP-002

Cat.-No. 2999

No clean flux paste for electronics with halogen-free activators
(WEEE/RoHS-conformant)
ISO-9454: 1231 (1.2.3.C) // DIN EN 61190-1-1 // J-STD-004: REL0

The flux paste EO-FP-002 was specially developed for repair work on printed circuit boards and is characterised by high activity and very good wetting and spreading behaviour. Due to these properties, the paste is extremely economical to dose. The paste is applied via plastic tips, which enable precise dosing and positioning of the paste and offer the advantage over steel needles that the printed circuit boards cannot be scratched. The flux paste can be processed with hot air- and soldering irons.

Customer added value:

- Perfect soldering results
- Economical consumption
- Also contaminated pads and pins are activated
- Careful and targeted dosage
- Wide process window (very high thermal stability, very high activity over a long interval
- High viscosity paste with the SMD components due to their temperature stability can be soldered extremely well

Technical Data:

Aplication area:	Manual-, repair- and dip soldering, special applications, especially suitable for SMD components, suitable for SnPb and Pb-free alloys
Appearance/smell:	pasty, amber, opaque, waxy, mild
Solids content:	very high Gew.-%
Density at 20 °C:	0,9–1,0 g/ml
Activators:	synthetic resins, di-carboxylic acids, halogenfree
Viscosity:	highly viscous
Flash point:	>80 °C
Durability:	12 months

Packaging units: syringes with 5 or 10 ml, cartridge

The picture may differ from the original product.

Flux gels

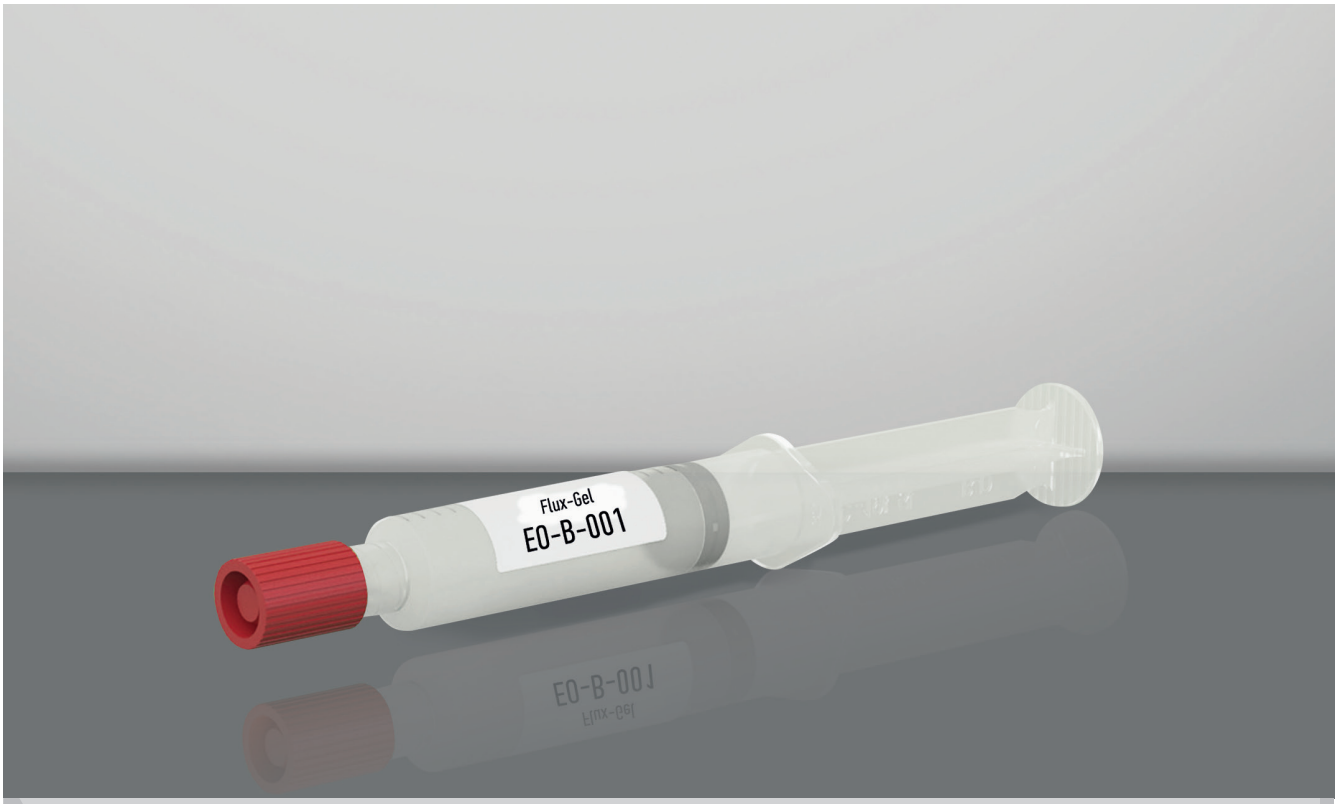
Flux gels are frequently used for repair work on assembled circuit boards. In the past fluxing agents for manual and repair soldering, that contained different activators, which were used for series production had to be used. Our newly developed flux gels are based on uniform activators contained in our previous electronic fluxes. We are therefore the only manufacturer to offer products based on one activator, from flux concentrate to finished flux and flux gel.

The each gel is highly concentrated and is characterized, among other things, by a high level of activity as well as good wetting and spread. Due to these characteristic the paste should be applied sparingly. The gel is applied using a dosing syringe with a teflon needle. This enables an exact application resp. positioning of the flux. Contaminated pads and pins are also activated by the gel. No crystals form and the solder pastes remain homogeneous and stable. After soldering, the gels do not leave any sticky residues behind.

The flux gels are ideal, if the customer requires the same flux activator in different processes.

In this case the customer can use one supplier. Due to uniform activators, cross reactions, that can occur with the use of different activators from different manufacturers can be avoided.

Product	Compatible fluxes
No clean flux gel EO-B-001	EO-B-001 A-C
No clean flux gel EO-B-002	EO-B-002 A-C
No clean flux gel EO-B-006	EO-B-006 A-C
No clean flux gel EO-B-007	EO-B-007 A-C
No clean flux gel EO-B-009	EO-B-009 A-C



Packaging units:  syringes with 5 and 10 ml, cartridge

The picture may differ from the original product.

Rework pastes

Rework pastes are lead-free solder pastes that are distinguished by a high level of activity as well as good wetting and spreading characteristic. The rework pastes are mixed with halogen-free fluxing agents and are therefore perfectly suited for all kinds of manual and repair soldering. All pastes are offered in syringes with a volume of 10 or 20 g. For manual and repair soldering the rework paste can be applied directly with the syringe, which enables a precise dosing resp. positioning of the paste. The subsequent soldering can be carried out using hot-air and soldering iron.

In individual cases, which must be checked by the user, these pastes can also support the wave soldering of critical components.

EO-RP-001

Cat.-No. 4600

No clean rework paste for the electronics with metal alloy component, (SAC 305), lead-free and halogen-free activators. (WEEE/RoHS-compliant)
Type ROL0 acc. ANSI/J-STD-004 (IPC-TM-650)

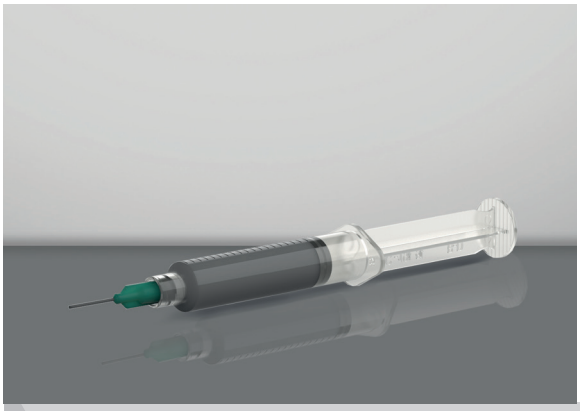
These rework paste (lead-free) with metal alloy component [Sn 96.5 Ag 3.0 Cu 0.5] (>85%) have been developed for repair work on circuit boards and components and are distinguished, among other things, by a high level of activity as well as good wetting and spread.

Due to these properties the paste should be applied sparingly. The paste is applied with a dosing syringe via a metal dosing needle.
This enables a precise dosing resp. positioning of the paste.

The processing of the rework paste can be carried out using hot-air or soldering iron.

Possible applications:

- Repair work on circuit boards
- Tinning of components



Customer added value:

- Highly effective
- Perfect soldering results
- Very wide process window
- Versatile application possibilities
- Economical in use
- Contaminated pads and pins are also activated
- No crystal formation, paste remains homogeneous and stable
- Careful and targeted dosing
- Low odor, hardly any development of vapors

In individual cases, which must be checked by the user, the wave soldering of critical components can also be supported with this paste. The paste is applied as described.

Packaging units:  syringes with 10 g or 20 g (including dosing syringe and cap)

The picture may differ from the original product.

EO-RP-005

Cat.-No. 4604

No clean rework paste for the electronics with metal alloy component, (low melting) lead-free and halogen-free activators. (WEEE/RoHS-compliant)
Type ROL0 acc. ANSI/J-STD-004 (IPC-TM-650)

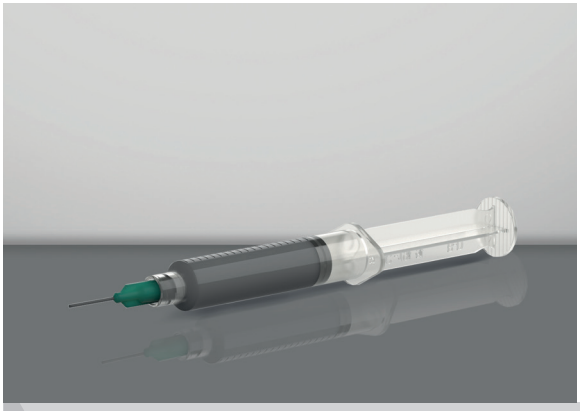
This rework paste (lead-free) with metal alloy component [Sn 42.0 Ag 0.4 Bi 57.6] (>85%) has been developed for repair work on circuit boards and components and is distinguished, among other things, by a high level of activity as well as good wetting and spread.

Due to these properties the paste should be applied sparingly.

The paste is applied with a dosing syringe via a metal dosing needle. This enables a precise dosing resp. positioning of the paste.
The processing of the rework paste can be carried out using a hot-air or soldering iron.

Possible applications:

- Repair work on circuit boards
- Tinning of components



Customer added value:

- Highly effective for low-melting processes
- Perfect soldering results
- Very wide process window
- Versatile application possibilities
- Economical in use
- Contaminated pads and pins are also activated
- No crystal formation, paste remains homogeneous and stable
- Careful and targeted dosing
- Low odor, hardly any development of vapors

In individual cases, which must be checked by the user, the wave soldering of critical components can also be supported with this paste. The paste is applied as previously described.

Packaging units:  syringes with 10 g or 20 g (including dosing syringe and cap)

The picture may differ from the original product.

EO-FLP-001

Cat.-No. 4611

No clean solder paste for the electronics with metal alloy component (SAC 305), lead-free and halide-free activators (WEEE/RoHS-compliant) Type ROL0 acc. ANSI/J-STD-004 (IPC-TM-650)

This liquid solder paste (lead-free) with metal alloy component (>80%) has been developed for repair work on circuit boards and components. It is low-viscous and is distinguished, among other things, by a high level of activity as well as good wetting and spread.

Due to these properties the paste should be applied sparingly.
The paste is normally applied with a brush, but can also be applied individually.

The processing of EO-FLP-001 can be carried out with a hot-air or soldering iron. Important information: This paste must be stirred before use!

Possible applications:

- Repair work on circuit boards
- Tinning of components

Customer added value:

- Highly effective
- Perfect soldering results
- Very wide process window
- Versatile application possibilities
- Economical in use
- Contaminated pads and pins are also activated
- No crystal formation, paste remains homogeneous and stable
- Careful and targeted dosing
- Low odor, hardly any development of vapors

In individual cases, which must be checked by the user, the wave soldering of critical components can also be supported with this paste. The paste is applied as previously described.

Packaging units: 50 g bottle with brush

The picture may differ from the original product.

EO-FLP-005

Cat.-No. 4615

No clean solder paste for the electronics with metal alloy component, lead-free and halide-free activators. (WEEE/RoHS-compliant) low-melting // ANSI/J-STD-004 (IPC-TM-650): ROL0

This liquid solder paste (lead-free) with metal alloy component SnAg 0.4 Bi 57.6 (>80%) has been developed for repair work on circuit boards and components. It is low-viscous and is distinguished, among other things, by a high level of activity as well as good wetting and spread.

Due to these properties the paste should be applied sparingly. The paste is normally applied with a brush, but can also be applied individually.

The processing of EO-FLP-005 can be carried out using hot-air or soldering iron. Important information: This paste must be stirred before use!

Possible applications:

- Repair work on circuit boards
- Tinning of components

Customer added value:

- Low-melting (melting point of solder: 137°C, working temperature 190-350°C)
- Perfect soldering results
- Very wide process window
- Versatile application possibilities
- Economical in use
- Contaminated pads and pins are also activated
- No crystal formation, paste remains homogeneous and stable
- Careful and targeted dosing
- Low odour, hardly any development of vapours

In individual cases, which must be checked by the user, the wave soldering of critical components can also be supported with this paste. The paste is applied as previously described.

Packaging units: 50 g bottle with brush

The picture may differ from the original product.

ALUSOL-SN

Cat.-No. 0962

Ready to use soft solder paste for aluminium
(Solder: Sn100 -pure tin-) (LEAD-FREE)
ISO-9454: 2.1.3.C (2131)

ALUSOL Solder Paste Sn has been developed especially for the soft soldering and tinning of aluminium and aluminium alloys with pure tin (Sn100). The solder paste has been formulated, so that no separate supply of solder is necessary.

The paste must be stirred before use. The paste is then applied to the assembled parts with a brush or similar. With overlapping parts, the overlaps should also be brushed slightly with the paste.

The application condition is achieved by heating in the kiln or by means of hot air, flame or iron to at least 250 °C. Due to the excellent activity of the fluxing agent contained in it, the ALUSOL solder paste spreads out very well on the surfaces of the workpieces and flows perfectly into soldering gaps. With such parts however, attention is to be given to the „soldering-suitable" design. A good passage requires an optimal soldering gap: 1/10 is recommended – all-round.

After the soldering process the easily water-soluble flux residues can be removed. This takes place by immersing „still hot parts in cold water" or „already cooled parts in hot water". Due to the different thermal expansion coefficients of the materials and flux rests, the residues almost immediately burst off the metallic components.

Customer added value:

- Special solder paste for soft soldering of aluminium with pure tin
- Simple handling, easy to stir
- No separate solder supply necessary
- Very strongly activated
- High temperature range: 250°C to max. 450°C
- Very clean soldering joints
- Extremely simple handling, laborious soldering with core solder not necessary
- Easy storage, can be stored at room temperature and does not harden (no polymerisation reactions)
- Not subject to labelling according to REACH (CLP) and GHS
- Not hazardous goods according to the current transport regulations

Important information: ALUSOL Solder Paste Sn must be stirred before use!

Technical Data:

Appearance:	grey-silver
Metal alloy:	Sn 100
Particle size:	<80 µ
Metal content:	>70%
Flux type:	2.1.3.C
Flux content:	<30%
Density at 20 °C	3-4 g/ml

Packaging units: 50 g Bottle with brush

The picture may differ from the original product.

ALUSOL-SN-X

Cat.-No. 0968

Ready to use -reinforced- soft solder paste
for aluminium (Solder: Sn100 -pure tin-)
(LEAD-FREE) // ISO-9454: 2133

ALUSOL Solder Paste Sn-X has been specially developed as a reinforced version for the soft soldering and tinning of aluminium and aluminium alloys with pure tin (Sn100). The solder paste has been formulated, so that no separate supply of solder is necessary. The paste must be stirred before use.

The paste is then applied to the assembled parts with a brush or similar. With overlapping parts, the overlaps should also be brushed lightly with the paste. The application condition is achieved by heating in the furnace or by means of hot air, flame or iron to at least 250 °C.

Due to the excellent and reinforced activity of the fluxing agent contained in it, the ALUSOL solder paste spreads out very well on the surfaces of the workpieces and flows perfectly into soldering gaps. With such parts however, attention is to be given to the „soldering-suitable" design. A good passage requires an optimal soldering gap: 1/10 is recommended – all-round.

After the soldering process the easily water-soluble flux residues can be removed. This takes place by immersing „still hot parts in cold water" or „already cooled parts in hot water". Due to the different thermal expansion coefficients of the materials and flux rests, the residues almost immediately burst off the metallic components.

Customer added value:

- Special solder paste for the soft soldering of aluminium with pure tin (Sn 100)
- With X-factor, reinforced version
- Simple handling, easy to stir
- No separate solder supply necessary
- Very strongly activated
- High temperature range: 250°C to max. 450°C
- Very clean soldering joints
- Extremely simple handling, laborious soldering with core solder not necessary
- Trouble-free storage, can be stored at room temperature and does not harden (no polymerisation reactions)
- Not hazardous goods according to the current transport regulations

Important information: ALUSOL Solder Paste Sn-X must be stirred before use!

Technical Data:

Appearance:	grey-silver
Metal alloy:	Sn 100
Particle size:	<80 µ
Metal content:	>70%
Flux type:	2.1.3.3
Flux content:	<30%
Density at 20 °C	3-4 g/ml

Packaging units: 50 g bottle with brush

The picture may differ from the original product.

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