

EMIL  OTTO



WATER-BASED
FLUXES

FLUX- AND SURFACE TECHNOLOGY

PRODUCTS FOR THE ELECTRONIC INDUSTRY

- Can be used without restrictions
- Can be used after consultation with Emil Otto GmbH
- Not recommended for use/no application possible

WAVE SOLDERING: SPRAY FLUXING
 WAVE SOLDERING: FOAM FLUXING
 SELECTIVE SOLDERING
 MANUAL - REPAIR SOLDERING
 DIP SOLDERING, STRANDED WIRE TIMMING
 SPECIAL APPLICATIONS

WATER-BASED FLUXES								Page
		Wave Soldering: Spray Fluxing	Wave Soldering: Foam Fluxing	Selective Soldering	Manual - Repair Soldering	Dip Soldering, Stranded Wire Timming	Special Applications	
	WB-30/EK1401	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	4
	WB-35/SOX/DT	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	4
	WB-35/SOX	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	5
	EO-G-001	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	5
	EO-G-002	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	6
	EO-G-003	Can be used without restrictions	Not recommended for use/no application possible	Can be used without restrictions	Not recommended for use/no application possible	Not recommended for use/no application possible	Not recommended for use/no application possible	6

WATER-BASED FLUXES

Since we individually customize our products, customers often ask us for ecological and sustainable products. As a sustainability-minded company we have taken this into account. As a result we have broadened our development efforts and concentrated on the development and production of ecological fluxing agents.



Our focus was not just on a sustainable end product, but also on environmentally sound production and simplified transportation. Our **Green Line** products are water-based, non-flammable and thus significantly less hazardous than alcohol based fluxes. The products are VOS-free. Consequently, they are not classed as hazardous goods and do not harm the environment. **Green Line** products are not dangerous, do not contain hazardous substances and can therefore be transported, handled and stored in the normal way. Simple, conventional storage represents a significant benefit to our customers.

The products of the **Green Line** series contain fluxing agents for wave soldering. All fluxing agents can be used with the production systems currently on the market. The soldering results correspond to those achieved using alcohol based fluxing agents. There is therefore no reason for you not to make the transition to ecological, water-based fluxing agents.

We are happy to help you find the right product for you eco-friendly and sustainable production.



WB-30/EK1401

Cat.-no.: 2107

No clean, water based flux, VOC-free, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)

Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

The WB-30/EK-1401 is pure water-based and has been developed for use with wave soldering machines. It has a high level of activity. It is ecologically harmless and non-flammable. The WB-30/EK1401 with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes. Application takes place using a spray fluxer. The soldering flux can also be used in selective soldering processes. Due to the low proportion of resin content, the coating of the flux residues is ensured and thereby the surface resistance is positively influenced. In practice it has been shown that with the correct application, the washing of printed circuit boards soldered with this flux can be largely dispensed with.

Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically very clean, high SIR)



Technical data:	
Appearance	colorless, minimal whitish
Solids content wt%	3.0
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	24 - 27
Activators/resin	di-carboxylic acids, synthetic resin
Solvents	water
Flash point °C	non-flammable
Durability (months)	12

Standard packaging units  20l Image may differ from the original.

WB-35/SOX/DT

Cat.-no.: 2125

No clean, water based flux, VOC-free, di-carboxylic acids, resin-free, halogen-free (WEEE/RoHS conformant)

Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

The WB-35/SOX/DT is purely water-based and is characterized by very good wetting properties. It is ecologically harmless and non-flammable. The WB-35/SOX/DT with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes. Application takes place using a spray fluxer. The main area of application is in wave soldering. In practice it has been shown that with the correct application, the washing of printed circuit boards soldered with this flux can be largely dispensed with.

Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically clean, high SIR)

Technical data:	
Appearance	colorless, clear liquid
Solids content wt%	3.5
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	28 - 32
Activators/resin	di-carboxylic acids
Solvents	water
Flash point °C	non-flammable
Durability (months)	12



Standard packaging units  20l Image may differ from the original.

WB-35/SOX

Cat.-no.: 2125

No clean, water based flux, VOC-free, di-carboxylic acids, resin-free, halogen-free
(WEEE/RoHS conformant)
Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

The WB-35/SOX is pure water-based and has been developed for use with wave soldering machines. It is ecologically harmless and non-flammable. The WB-35/SOX with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes. Application takes place using a spray fluxer. It has a high level of activity. In practice it has been shown that with the correct application, the washing of printed circuit boards soldered with this flux can be largely dispensed with.

Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically very clean, high SIR)



Technical data:

Appearance	colorless, clear
Solids content wt%	3.5
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	28 - 32
Activators/resin	di-carboxylic acids
Solvents	water
Flash point °C	non-flammable
Durability (months)	12

Standard packaging units  20l Image may differ from the original.

EO-G-001

Cat.-no.: 6012

No clean, water based flux, VOC-free, di-carboxylic acids, resin-free, halogen-free
(WEEE/RoHS conformant)
Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

EO-G-001 is a purely water-based soldering flux for wave and selective soldering. It is ecologically harmless and non-flammable. The EO-G-001 with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes.

In practice it has been shown that with the correct application, the washing of printed circuit boards soldered with this flux can be largely dispensed with.

Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically very clean, high SIR)

Technical data:

Appearance	colorless, clear
Solids content wt%	3.5
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	28 - 32
Activators/resin	di-carboxylic acids
Solvents	water
Flash point °C	non-flammable
Durability (months)	12



Standard packaging units  20l Image may differ from the original.

EO-G-002

Cat.-no.: 6015

No clean, water based flux, VOC-free, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)

Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

EO-G-002 is a purely water-based soldering flux for wave and selective soldering. It is ecologically harmless and non-flammable. The EO-G-002 with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes.

The soldering results and the cleanliness of the circuit boards after the soldering process are very good.

In practice it has been shown that with the correct application, the washing of printed circuit boards soldered with this flux can be largely dispensed with.

Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically very clean, high SIR)



Technical data:	
Appearance	colorless, minimal whitish
Solids content wt%	3.0
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	24 - 27
Activators/resin	di-carboxylic acids, synthetic resin
Solvents	water
Flash point °C	non-flammable
Durability (months)	12

Standard packaging units  20l Image may differ from the original.

EO-G-003

Cat.-no.: 6008

No clean, water based flux, VOC-free, di-carboxylic acids, resin-free, halogen-free (WEEE/RoHS conformant)

Type 2.1.3.1 // ORLO acc. ISO 9454 // DIN EN 61 190-1-1

EO-G-003 is a purely water-based soldering flux for wave and selective soldering. It is ecologically harmless and non-flammable. The EO-G-003 with its soldering-related properties is at least just as good as comparable alcohol-based soldering fluxes.

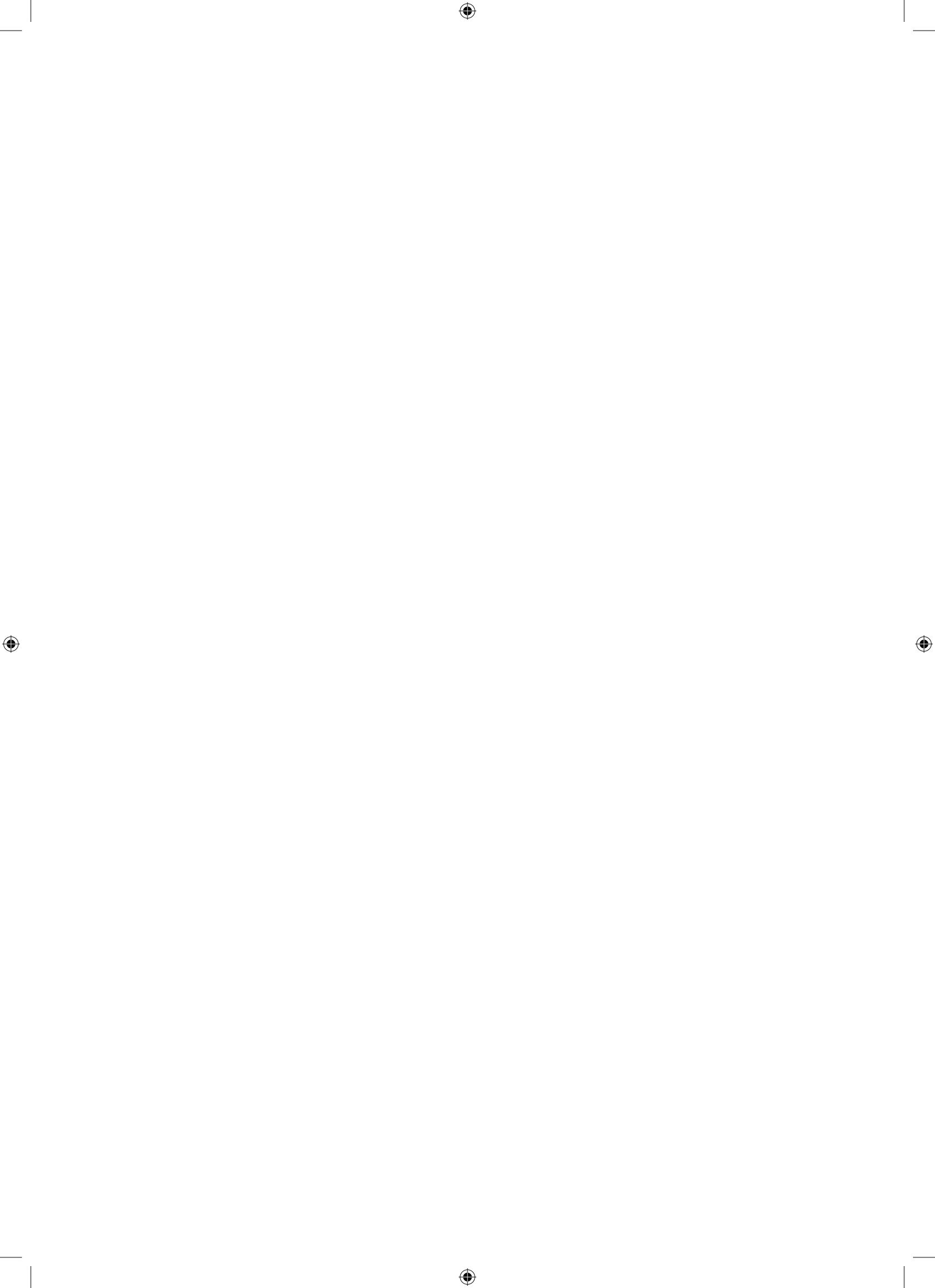
Customer added value:

- Non-flammable (no legal restrictions for transport, storage and handling)
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (optically very clean, high SIR)

Technical data:	
Appearance	colorless, clear
Solids content wt%	3.3
Density 20°C-g/cm ³	1.00 - 1.02
Acid number mg KOH/g	27 - 32
Activators/resin	di-carboxylic acids
Solvents	water
Flash point °C	non-flammable
Durability (months)	12



Standard packaging units  20l Image may differ from the original.



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