Delivery program

The technology.....

.....for soldering, brazing and welding.

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FELDER Löttechnik

Contents

Your single source for soldering supplies!

If you are unable to find your specific requirements in this brochure, please do not hesitate to contact our sales department. We would be delighted to help you.

ISO 9001 - Quality assurance

Our laboratory for product research and quality control

FELDER GMBH is an innovative company that specialises in soldering technology.
Using the latest production processes, we guarantee a high and consistent quality for our solders and fluxes.

All **FELDER** products are subject to continuous quality control by our laboratory and are manufactured according to **ISO 9001:2000** standards.

Our laboratory is equipped with optical emission spectrometers and infrared spectrophotometers, among other things. We also implement traditional analytical methods.
These form the basic conditions for many of our forward-looking developments.

We are committed to providing competent advisory services and solutions for a customer's specific problem.

Our extensive range of products makes us a very capable partner for industry and trade.

We gladly comply with your specifications and look forward to working together!

Soft solder rods

according to DIN EN 29453

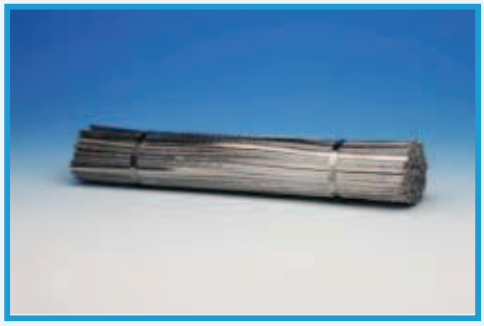
PU	Delivery form	Sizes
25.0 kg	Triangular rod	approx. 10 x 10 x 10 x 400 mm
25.0 kg	Pressed rod	approx. 8 x 10 x 400 mm

Article No.	Alloy	Melting range	Description and application
12250122	S-Pb74Sn25Sb1	185 - 263 °C	Triangular rods, coachwork tin
12251000	S-Pb74Sn25Sb1	185 - 263 °C	Pressed rods, coachwork tin
12310120	S-Pb70Sn30	183 - 255 °C	Triangular rods, radiator construction, soldering of stainless steel
12360122	S-Pb65Sn35	183 - 245 °C	Triangular rods, lead cable sheath, Zn and Zn alloys
12410122	S-Pb60Sn40	183 - 235 °C	Roofing tin for Cu and Zn gutters
12510120	S-Pb50Sn50Sb	185 - 216 °C	Triangular rods, general soldering in metal craft
12610120	S-Sn60Pb40Sb	183 - 190 °C	Triangular rods, general soldering in metal craft
12970120	S-Sn97Cu3	230 - 250 °C	lead-free roofing tin for Cu gutters (w/o rivet joints), electronic solder
12940120	S-Sn99Cu1	227 °C	lead-free electronic solder
5512941026	Sn100Ni+	227 °C	lead-free electronic solder, minimum dealloying of Fe / Cu
12950120	S-Sn97Ag3	221 - 224 °C	lead-free electronic solder
12840120	S-Sn95.5Ag3.8Cu0.7	217 °C	lead-free electronic solder
12990120	Sn99.9	232 °C	Block tin (also with Cu or Sb additives)
12911000	Sn92Cu8	230 - ~ 350 °C	Pressed rods, lead-free coachwork tin

Soft solder in threads

Threads, half-round
according to DIN EN 29453

PU	Article No. (Nos. 5-8)	Length	Thickness
25.0 kg	12 . . 0450	500 mm	2-3 mm
	12 . . 0550		3-4 mm
	12 . . 0650		4-5 mm
	12 . . 0750		5-6 mm



Article No. (Nos. 3+4)	Alloy	Melting range	Description and application
1231	S-Pb70Sn30	183 - 255 °C	Radiator construction
1236	S-Pb65Sn35	183 - 245 °C	Radiator construction
1241	S-Pb60Sn40	183 - 235 °C	Radiator construction
1251	S-Pb50Sn50Sb	183 - 216 °C	Tiffany solder
1261	S-Sn60Pb40Sb	183 - 190 °C	Tiffany solder

Aluminium soft solder

Sn-Zn alloy as rubbing solder
Triangular rods of 400 mm

Furthermore we recommend using
our flux-cored solder wire ISO-Core® **"AL"**
- for description see pg. 9 -

Article No.	Alloy	Melting range	PU	Delivery form
13600120	S-Sn60Zn40	200 - 340 °C	20.0 kg	Triangular rod
13630120	S-Sn90Zn10	200 - 250 °C		

Bearing metal

according to DIN ISO 4381
for lining bearing shells

Article No.	Alloy	PU	Delivery form
13090055	PbSb14SnCuAs	1 pce.	8 - 10 kg block
13100055	PbSb15Sn10		
13800055	SnSb12Cu6Pb		
Other alloys are available upon request.			

Lead wool

in scraped quality for
sealing of earthenware ducts

Article No.	PU	Delivery form
13009199	50.0 kg	Bag

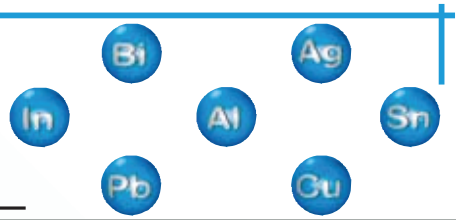
Rolled lead "MERKUR"

Pb99.97 Cu0.03-0.05%
with size and weight information printed

PU	Delivery form	Standard size
50.0 kg	Roll	1.25 x 1,000 mm

Standard cuts: 200 mm, 250 mm, 330 mm, 450 mm
Other sizes are available upon request.

Flux-cored soft solder wires



Flux-cored soft solder wire ISO-Core® "RA"

Flux-cored, halide activated soft solder wire
acc. to DIN EN 29454.1, 1.1.2.B,
or DIN EN 61190-1-3, ROM1

Standard solder wire for manual soldering
in electrical engineering, standard flux content 2.5 %

Article No. (Nos. 1- 4)	Alloy	DIN EN 29453	DIN EN 61190	Melting range	lead-free/lead-containing
1884	Sn95.5Ag3.8Cu0.7	-	Sn96Ag04Cu0.7	217 °C eutectic	lead-free
1895	Sn97Ag3	S-Sn97Ag3	-	221 - 224 °C	
1894	Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu0.7	227 °C eutectic	
1897	Sn97Cu3	S-Sn97Cu3	-	230 - 250 °C	
551894	Sn100Ni+	Fuji Patent	-	227 °C eutectic	
1860	Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C	lead-containing
1864	Sn60Pb38Cu2	S-Sn60Pb38Cu2	Sn60Pb38Cu02	183 - 190 °C	
1853	Pb50Sn50	S-Pb50Sn50	Sn50Pb50	183 - 215 °C	
1840	Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C	
1832	Pb70Sn30	S-Pb70Sn30	Sn30Pb70	183 - 255 °C	
Other alloys, sizes and delivery forms are available upon request.					

Diameters

Article No. (Nos. 5+6)	Ø in mm
18 . . 05 . .	0.50
18 . . 07 . .	0.75
18 . . 10 . .	1.00
18 . . 15 . .	1.50
18 . . 20 . .	2.00
18 . . 30 . .	3.00
18 . . 40 . .	4.00

Spools

Article No. (Nos. 7+8)	Size
18 10	0.100 kg
18 20	0.250 kg
18 30	0.500 kg
18 40	1.0 kg
18 50	5.0 kg

Example for the article number:

18601040

Nos. 1+2	Nos. 3+4	Nos. 5+6	Nos. 7+8
18	60	10	40
ISO-Core® "RA"	Sn60Pb40	Ø = 1.00 mm	1.0 kg

For fine soldering in electronics, electrical engineering, telecommunications and electric motor construction.

FELDER ISO-Core® solder wires are produced similar to FELDER ISO-Tin® electronic grade solder alloys using the same high-purity alloy components according to international standards.
The fluxing agents are characterised by their high thermal stability and the fact that they do not spatter during reflow!
The light, solid flux residue of these solder wires does not cause corrosion with nonferrous metals. As a result, this residue does not have to be removed at the soldered joint.

Other available, halide activated solder wires according to DIN EN 29454.1, 1.1.2.B:

ISO-Core® "RA-05" Mildly halide activated, also suitable for electronics to a certain extent, halogen content < 0.5%.

ISO-Core® "RA-AT" Specifically developed for mechanical soldering with short cycles and high soldering temperatures, halogen content < 1.5%.

Flux-cored soft solder wire ISO-Core® "EL"

Flux-cored, halide-free activated soft solder wire.
Flux acc. to DIN EN 29454.1, 1.1.3.B
or DIN EN 61190-1-3, ROL0.

No-clean standard solder wire for manual soldering in electronics, standard flux content 3.5%.

Article No. (Nos. 1- 4)	Alloy	DIN EN 29453	DIN EN 61190	Melting range	lead-free/lead-containing
2084	Sn95.5Ag3.8Cu0.7	-	Sn96Ag04Cu0.7	217 °C eutectic	lead-free
2095	Sn97Ag3	S-Sn97Ag3	-	221 - 224 °C	
2094	Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu.7	227 °C eutectic	
2097	Sn97Cu3	S-Sn97Cu3	-	230 - 250 °C	
552094	Sn100Ni+	Fuji Patent	-	227 °C eutectic	
2060	Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C	lead-containing
2064	Sn60Pb38Cu2	S-Sn60Pb38Cu2	Sn60Pb38Cu02	183 - 190 °C	
2040	Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C	
Other alloys, sizes and delivery forms are available upon request.					

Diameters

Article No. (Nos. 5+6)	Ø in mm
20 . . 05 . .	0.50
20 . . 07 . .	0.75
20 . . 10 . .	1.00
20 . . 15 . .	1.50
20 . . 20 . .	2.00
20 . . 30 . .	3.00
20 . . 40 . .	4.00

Spools

Article No. (Nos. 7+8)	Size
20 10	0.100 kg
20 20	0.250 kg
20 30	0.500 kg
20 40	1.0 kg
20 50	5.0 kg

Example for the article number:

20601040

Nos. 1+2	Nos. 3+4	Nos. 5+6	Nos. 7+8
20	60	10	40
ISO-Core® "EL"	Sn60Pb40	Ø = 1.00 mm	1.0 kg

No-clean soft solder wire for very demanding applications in electronics and electrical engineering

The fluxing agents are characterised by their high thermal stability and the fact that they do not spatter during reflow!
The light, solid flux residue of these solder wires do not cause corrosion with nonferrous metals and offers maximum surface resistance values. As a result, this residue does not have to be removed at the soldered joint.

The EL and ELR grades have been qualified by Siemens Berlin (Certification Body CT MM 6) in connection with the lead-free alloy.

Other available, halide-free activated solder wires according to DIN EN 29454.1, 1.2.3.B or 2.2.3.B, respectively:

ISO-Core® "ELR" Low-residue no-clean SMD solder wire. Specifically adapted to the requirements of resoldering work on SMD-equipped modules. Standard flux content 1.0 %

ISO-Core® "ELS" No-clean electronic grade solder wire based on synthetic resins (1.2.3.B). Standard flux content 1.0%

Flux-cored soft solder wire ISO-Core® "Kolo"

Flux-cored soft solder wire acc. to DIN EN 29453.
Flux acc. to DIN EN 29454.1, 1.1.1.B
or DIN EN 61190-1-3, ROL0.
Flux content 3.5% standard

For soldering in the field of electronics and telecommunications

Article No. (Nos. 1- 4)	Alloy	DIN EN 29453	DIN EN 61190	Melting range
1941	Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 238 °C
1961	Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C
Other alloys, sizes and delivery forms are available upon request.				

Diameters

Article No. (Nos. 5+6)	Ø in mm
19 . . 10 . .	1.00
19 . . 15 . .	1.50
19 . . 20 . .	2.00
19 . . 30 . .	3.00
19 . . 40 . .	4.00

Spools

Article No. (Nos. 7+8)	Size
19 10	0.100 kg
19 20	0.250 kg
19 30	0.500 kg
19 40	1.0 kg
19 50	5.0 kg

Example for the article number: 19412040

Nos. 1+2	Nos. 3+4	Nos. 5+6	Nos. 7+8
19	41	20	40
ISO-Core® "Kolo"	Pb60Sn40	Ø = 2.00 mm	1.0 kg

Flux-cored soft solder wire ISO-Core® "SP"

Flux-cored soft solder wire acc. to DIN EN 29453.
Flux acc. to DIN EN 29454.1, 2.1.3.B
Flux content 2.5% standard

For general soldering of copper and copper based alloys

Article No. (Nos. 1- 4)	Alloy	DIN EN 29453	DIN EN 61190	Melting range
1532	Pb70Sn30	S-Pb70Sn30	Sn30Pb70	183 - 254 °C
1540	Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 190 °C
1560	Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 238 °C
Other alloys, sizes and delivery forms are available upon request.				

Diameters

Article No. (Nos. 5+6)	Ø in mm
15 . . 10 . .	1.00
15 . . 15 . .	1.50
15 . . 20 . .	2.00
15 . . 30 . .	3.00
15 . . 40 . .	4.00

Spools

Article No. (Nos. 7+8)	Size
15 10	0.100 kg
15 20	0.250 kg
15 30	0.500 kg
15 40	1.0 kg
15 50	5.0 kg

Example for the article number: 15401520

Nos. 1+2	Nos. 3+4	Nos. 5+6	Nos. 7+8
15	40	15	20
ISO-Core® "SP"	Pb60Sn40	Ø = 1.50 mm	0.250 kg

Flux-cored soft solder wires

ISO-Core® "AL"

new!

Flux-cored soft solder wire for soldering of aluminium and aluminium based alloys according to DIN EN 29454.1, 2.1.2.C.
Preferred alloy: S-Sn97Cu3
Flux content: 4 % standard
Diameter: 1.5 mm and 2.0 mm

ISO-Core® "VA"

new!

Flux-cored soft solder wire for soldering of steel and stainless steel according to DIN EN 29454.1, 3.1.1.C.
Preferred alloy: Sn96.5Ag3.5
Flux content: 4 % standard.
Diameter: 1.5 mm and 2.0 mm
Other sizes are available upon request.

Colophony plumber's solder

Flux-cored soft solder wire
for soldering of copper and lead (lead sheathed cables),
according to DIN EN 29454.1, 1.1.1.B.

Article No.	Ring weight	Alloy	DIN EN 29453	Melting range	Diameter
19325041	1.0 kg	Pb70Sn30	S-Pb70Sn30	183 - 254 °C	5.00 mm
19325051	5.0 kg				
19375041	1.0 kg	Pb65Sn35	S-Pb65Sn35	183 - 245 °C	
19375051	5.0 kg				
19415041	1.0 kg	Pb60Sn40	S-Pb60Sn40	183 - 238 °C	
19415051	5.0 kg				
Other alloys, sizes and delivery forms are available upon request.					

Stearin - Plumber's solder

Flux-cored soft solder wire
for soldering of lead piping and sheets,
according to DIN EN 29454.1, 2.2.3.B.

Article No.	Ring weight	Alloy	DIN EN 29453	Melting range	Diameter
16325041	1.0 kg	Pb70Sn30	S-Pb70Sn30	183 - 254 °C	5.00 mm
16325051	5.0 kg				
16375041	1.0 kg	Pb65Sn35	S-Pb65Sn35	183 - 245 °C	
16375051	5.0 kg				
16415041	1.0 kg	Pb60Sn40	S-Pb60Sn40	183 - 238 °C	
16415051	5.0 kg				
Other alloys, sizes and delivery forms are available upon request.					

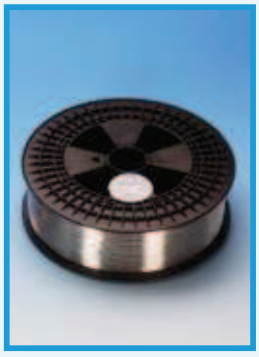
FELDER Löttechnik

Solid wires and special soft solders

Solid wires

(without flux core)

Ø in mm	1.00 • 1.50 • 2.00 • 3.00 • 4.00 • 5.00 • 6.00 • 8.00
Spools	0.250 • 0.500 • 1.0 • 5.0 • 10.0 • 15.0 kg
Rings	1.0 • 5.0 kg
It would be our pleasure to produce all solder wires in line with your in-house standards.	



Alloy	DIN EN 29453	DIN EN 61190	Melting range	Delivery form
Sn99.9 (pure tin)	-	Sn99	232 °C	Spool
Pb99.99 (lead)	-	-	327 °C	Spool / Ring
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C	Spool
Sn50Pb50	S-Pb50Sn50	Sn50Pb50	183 - 215 °C	Spool
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 238 °C	Spool
Other alloys, sizes and delivery forms are available upon request.				

Melting range in °C		Rel. density g/m³	Hard-ness HB	Tensile strength N/mm²	Electric conductivity m / Ω x mm²
Solidus	Liquidus				
47	47	9.40	-	-	-
69	71	9.50	10	44.1	2.3
70	70	9.60	10	44.1	2.3
72	72	8.00	-	-	-
92	92	10.40	6	38.3	1.5
95	95	9.70	9	38.8	1.5
100	100	9.34	-	-	-
103	103	8.60	18	67.7	4.1
104	104	8.70	-	-	-
109	109	8.80	-	-	-
124	124	10.60	11	29.4	1.0
138	138	8.10	19	57.9	4.0
145	145	8.50	14	38.8	7.6
158	158	7.50	22	64.7	8.9
170	170	8.00	-	-	-
183	183	8.40	13	29.4	7.1
221	221	7.30	15	45.1	7.5
292	292	11.10	-	-	-
299	304	11.20	-	-	-
303	303	11.30	-	-	-
304	304	11.10	10	31.4	4.7
304	304	11.00	10	28.5	4.7
309	309	11.30	-	-	-

FELDER - Special soft solders

On the left we have listed some of the most important fusible alloys. Of course, we can also produce the ideal fusible alloy for your specific application / melting point.

Standard delivery form:

Triangular rods
Also available as wire depending on alloy

Fitting solder Cu-Rotin®3

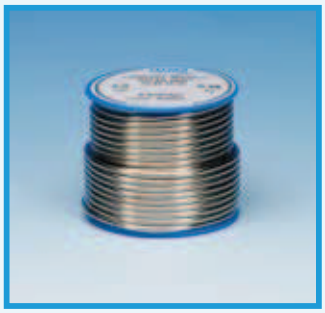
for soft soldering of copper pipes
in drinking water and heating installations (up to 110°C)
in accordance with DVGW-Arbeitsblatt GW 2 [worksheet].
Awarded the RAL mark of quality of
Gütegemeinschaft Kupferrohr e.V.

Article No.	Delivery form	PU	Diameter	Alloy	Melting range
14972010	0.100 kg spool	100 pcs.	2.00 mm	S-Sn97Cu3	230 - 250 °C
14972020	0.250 kg spool	50 pcs.			
14972710	0.100 kg spool	100 pcs.	2.70 mm		
14972720	0.250 kg spool	50 pcs.			

Fitting solder Cu-Rotin®4

for soft soldering of copper pipes
in drinking water and heating installations (up to 110°C)
in accordance with DVGW-Arbeitsblatt GW 2 [worksheet].
Awarded the RAL mark of quality of
Gütegemeinschaft Kupferrohr e.V.

**Also suited for soldering of steel and stainless steel,
in connection with our solder oil "ST"
or solder liquid "VA-NOX" (pg. 18).**



Article No.	Delivery form	PU	Diameter	Alloy	Melting range
14951010	0.100 kg spool	100 pcs.	1.00 mm	S-Sn97Ag3	221 - 224 °C
14951020	0.250 kg spool	50 pcs.			
14951040	1.0 kg spool	20 pcs.			
14951510	0.100 kg spool	100 pcs.	1.50 mm		
14951520	0.250 kg spool	50 pcs.			
14951540	1.0 kg spool	20 pcs.			
14952010	0.100 kg spool	100 pcs.	2.00 mm		
14952020	0.250 kg spool	50 pcs.			
14952040	1.0 kg spool	20 pcs.			
14953010	0.100 kg spool	100 pcs.	3.00 mm		
14953020	0.250 kg spool	50 pcs.			
14953040	1.0 kg spool	20 pcs.			

Fitting solder paste Cu-Rofix®3-Spezial

DIN EN 29453, S-Sn97Cu3, DIN EN 29454.1, 3.1.1.C (F-SW 21),
for soft soldering of copper pipes in drinking water and
heating installations in accordance with
DVGW-Arbeitsblatt GW7 [worksheet], awarded the
RAL mark of quality
of Gütegemeinschaft Kupferrohr e.V.
Metal content at least 60%.
The flux residue is soluble in cold water and
can be easily removed by rinsing.
DVGW mark of conformity: DV-0101 AT 2247 (FI058)

Article No.	Delivery form	PU	Alloy	Melting range
229760501	0.100 kg plastic jar / brush holder	100 pcs.	S-Sn97Cu3	230 - 250 °C
229760551	0.250 kg plastic jar / brush holder	50 pcs.		
22976049	*new!* 80 g Simple-fix *new!*	12 pcs.		

Fitting solder paste Cu-Rofix®4

DIN EN 29453, S-Sn97Ag3, DIN EN 29454.1, 3.1.1.C (F-SW 21)
for soft soldering of copper piping in drinking water and
heating installations in accordance with
DVGW-Arbeitsblatt GW7 [worksheet], awarded the
RAL mark of quality
of Gütegemeinschaft Kupferrohr e.V.
Metal content at least 60%.
The flux residue is soluble in cold water and can be
easily removed by rinsing.

Article No.	Delivery form	PU	Alloy	Melting range
22956050	0.100 kg plastic jar	100 pcs.	S-Sn97Ag3	221 - 240 °C
22956055	0.250 kg plastic jar	50 pcs.		

Soft solder flux Cu-Roplus®

Paste-like flux according to DIN EN 29454.1, 3.1.1.C (F-SW 21)
for soft soldering of copper piping in drinking water and
heating installations in accordance with DVGW-Arbeitsblatt GW7
[worksheet], awarded the RAL mark of quality of Gütegemeinschaft
Kupferrohr e.V.
The flux residue is soluble in cold water and can be easily removed
by rinsing.
DVGW mark of conformity: DV-0101 AT 2243 (FI 009)

Article No.	Content	Delivery form	PU
24310199	70 g	Tube	100 pcs.
24310150	0.100 kg	Plastic jar with brush holder	50 pcs.

Soft solder flux Cu-Roflux® 39

Liquid flux according to DIN EN 29454.1, 3.1.1.A (F-SW 21) for soft soldering of copper piping in drinking water and heating installations in accordance with DVGW-Arbeitsblatt GW7 [worksheet], awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.
The flux residue is soluble in cold water and can be easily removed by rinsing.
DVGW mark of conformity: DV-0101 AT 2246 (FI 050)

Article No.	PU	Delivery form	Size of unit
24300150	50 pcs.	Bottle	0.100 kg bottle with brush inset
24300155	45 pcs.	Bottle	0.250 kg bottle with brush inset
24300160	30 pcs.	Bottle	0.500 kg bottle
24300170	15 pcs.	Bottle	1.0 kg bottle
24300185	1 pce.	Canister	25.0 kg canister
24300122	12 pcs.	Simple-fix	*new!* 25 ml Simple-fix *new!*
24300152	12 pcs.	Simple-fix	*new!* 100 ml Simple-fix *new!*

Soft solder flux Cu-Roclean®

ph neutral • dermatologically safe • environmentally safe

Zinc-chloride-free flux acc. to DIN EN 29454.1, 2.1.2.C (F-SW 25) for soft soldering of copper piping in drinking water and heating installations in accordance with DVGW-Arbeitsblatt GW7 [worksheet], awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.
The flux residue is soluble in cold water and can be easily removed by rinsing.
DVGW mark of conformity: DV-0101 AT 2046

Article No.	PU	Delivery form	Content
24350152	50 pcs.	Plastic jar with brush holder	0.125 kg

Soft solder flux Cu-Roflow®

Zinc-chloride-free flux according to DIN EN 29454.1, 2.1.2.C (F-SW 25) for soft soldering of copper piping in drinking water and heating installations.
The flux residue is soluble in cold water and can be easily removed by rinsing.

Article No.	PU	Delivery form	Content
24350250	50 pcs.	Plastic jar	0.100 kg

Soft solder and tinning paste

Alloys according to DIN EN 29453,
Flux according to DIN EN 29454.1, 3.1.1.C (F-SW 21)
for the tinning of car body sheeting, among other things
Metal content 60 – 70%
- ready-to-use metal paste -
The paste does not have to be stirred before use!

PU	Delivery form	Content
50 pcs.	Bottle	0.100 kg
45 pcs.	Bottle	0.250 kg
30 pcs.	Bottle	0.500 kg
15 pcs.	Bottle	1.0 kg
10 pcs.	Can with brush inset	1.0 kg

Alloy	Melting range	Comments
S-Pb74Sn25Sb1	186 - 260 °C	only available in 1.0 kg bottle
S-Pb60Sn40	183 - 215 °C	
S-Sn60Pb40	183 - 190 °C	only available in 1.0 kg bottle / can
S-Sn97Cu3	230 - 250 °C	***new!*** lead-free - RoHS compliant ***new!***
S-Sn99.9%	232 °C	lead-free - RoHS compliant

Solar soft solder pastes

Many years of experience gathered from working
with manufacturers of solar collectors show that FELDER's
Solar soft solder pastes are ideally suited for the soft soldering of
copper piping and coated absorber copper sheets.

Our fluxes are based on modified resins. The flux residue
left behind is not corrosive and can stay
at the soldered joint. The contour stability of the solder paste
is consistent such that the paste does not run before soldering starts.

The outgassing of the flux residue has been kept to a minimum. The
solder paste is 100% halide-free. As a result, the coating
of the copper sheets is no longer damaged by halogens.

We supply our solder pastes with various flux contents and thus are
able to optimally adapt their viscosity to
our customer's production process.

Certified by the Institut für
Solartechnik in Rapperswil

SPF Solartechnik Prüfung Forschung

PU	Delivery form	Content
1.0 kg	Cartridge	1.0 kg
12.5 kg	Bucket	12.5 kg
25.0 kg	Metal bucket	25.0 kg

Product name	Alloy	Melting range	Flux	Metal content
FK 115 Solar soft solder paste	S-Sn97Cu3	230 - 250 °C	DIN EN 29454.1, 1.1.3.B	70 - 85 %
	S-Sn97Ag3	221 - 240 °C		
LC 115 Solar soft solder paste	S-Sn97Cu3	230 - 250 °C		
	S-Sn97Ag3	221 - 240 °C		

Of course, our Solar soft solder pastes are also available with other soft solder alloys.

Solder liquid

DIN EN 29454.1, 3.1.1.A (F-SW 12)
Flux for general soldering of all metallic surfaces
except for aluminium and stainless steel.

Article No.	Delivery form	PU	Description
24220021	Bottle	100 pcs.	25 ml bottle with brush inset
24220036	Bottle	100 pcs.	50 ml bottle with brush inset
24220051	Bottle	100 pcs.	100 ml bottle
24220056	Bottle	45 pcs.	250 ml bottle
24220061	Bottle	20 pcs.	500 ml bottle
24220071	Bottle	15 pcs.	1000 ml bottle
24220086	Canister	1 pce.	25.0 l canister
24220022	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24220052	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder grease

DIN EN 29454.1, 3.1.1.C (F-SW 21)
Flux for general soft soldering of copper and copper base alloys.

Article No.	PU	Delivery form	Description
24310010	200 pcs.	Can	20 g can
243100351	200 pcs.	Can	50 g can
243100501	150 pcs.	Can	100 g can
243100551	50 pcs.	Can	250 g can
24310060	25 pcs.	Bottle	0.500 kg bottle
24310070	16 pcs.	Bottle	1.0 kg bottle
24310075	1 pce.	Bucket	5.0 kg bucket

Solder liquid for zinc and galvanised sheets

Solder liquid "ZD"

DIN EN 29454.1, 3.2.2.A (F-SW 11)
for soft soldering of new and oxidised titanium zinc, galvanised sheet steel and refined zinc

Article No.	Delivery form	PU	Description
24110050	Bottle	50 pcs.	0.100 kg bottle with brush inset
24110055	Bottle	45 pcs.	0.250 kg bottle with brush inset
24110060	Bottle	30 pcs.	0.500 kg bottle
24110070	Bottle	15 pcs.	1.0 kg bottle
24110085	Canister	1 pce.	25.0 kg canister
24110022	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24110052	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder liquid "ZD-Spezial"

DIN EN 29454.1, 3.2.2.A (F-SW 11)
for soft soldering of **highly** oxidised zinc plate, galvanised sheet steel and refined zinc

Article No.	Delivery form	PU	Description
24110250	Bottle	50 pcs.	0.100 kg bottle with brush inset
24110270	Bottle	15 pcs.	1.000 kg bottle
24110285	Canister	1 pce.	25.0 kg canister
24110222	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24110252	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

new!

Solder liquid "ZD-pro"

DIN EN 29454.1, 3.2.2.A (F-SW 11)
for soft soldering of “bright rolled” RHEINZINK®,
RHEINZINK® “pre-weathered pro” blue grey and slate grey
and NedZink “Nova”

Article No.	Delivery form	PU	Description
24110570	Bottle	15 pcs.	1.0 kg bottle
24110522	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24110552	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

new!

Solder liquid "ZD-Quartz"

DIN EN 29454.1, 3.2.2.A (F-SW 11)
for soft soldering of
VM-ZINC®, QUARTZ-ZINC® and ANTHRA-ZINC®

Article No.	Delivery form	PU	Description
24110670	Bottle	15 pcs.	1.0 kg bottle
24110622	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24110652	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder liquid for steel, stainless steel and copper sheets

Solder oil "ST"

DIN EN 29454.1, 3.2.2.A (F-SW 11)
Flux for soft soldering of steel and stainless steel

For soft soldering of stainless steel we recommend using our
ISO-Core® "**VA**" flux-cored solder wire
(see pg. 9)

Article No.	Delivery form	PU	Description
24100051	Bottle	100 pcs.	100 ml bottle with brush inset
24100056	Bottle	45 pcs.	250 ml bottle
24100061	Bottle	20 pcs.	500 ml bottle
24100022	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24100052	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder liquid "VA-NOX"

DIN EN 29454.1, 3.2.1.A (F-SW 11)
Flux for soft soldering of stainless steel roofing sheets
- zinc-chloride-free -

- recommended by the Informationsstelle Edelstahl Rostfrei -

Article No.	Delivery form	PU	Description
24010070	Bottle	15 pcs.	1,000 ml bottle
24010022	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24010052	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder liquid "KD"

DIN EN 29454.1, 3.1.1.A (F-SW 21)
for soft soldering of copper gutters and downpipes

Article No.	Delivery form	PU	Description
24300050	Bottle	50 pcs.	0.100 kg bottle with brush inset
24300055	Bottle	45 pcs.	0.250 kg bottle with brush inset
24300060	Bottle	30 pcs.	0.500 kg bottle
24300070	Bottle	15 pcs.	1.0 kg bottle
24300022	Simple-fix	12 pcs.	*new!* 25 ml Simple-fix *new!*
24300052	Simple-fix	12 pcs.	*new!* 100 ml Simple-fix *new!*

Solder pen "SP"

DIN EN 29454.1, 3.1.1.C (F-SW 21)
Soft solder flux, coated with a soldering tin foil, for soldering of copper, copper base alloys, zinc, galvanised sheet steel and iron.
Especially suited for electrical installation,
in particular soldering cables

Article No.	PU	Delivery form	Size
24310035	100 pcs.	Pen	Solder pen, 20 x 200 mm

Stearin rods

DIN EN 29454.1, 3.1.1.C (F-SW 21)
Flux for soft soldering of lead piping and sheeting

Article No.	PU	Delivery form	Size
24400135	1 pce.	Rod	Rod, 20 x 140 mm

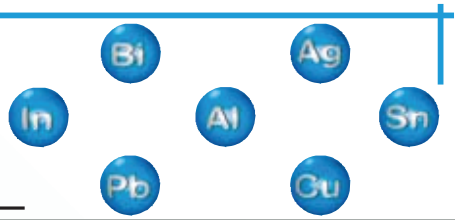
Aluminium soft solder flux

DIN EN 29454.1, 2.1.3.C (F-LW 2)
Flux for soft soldering of aluminium and aluminium base alloys

Article No.	PU	Content	Delivery form	Effective temperature
24510050	100 pcs.	0.100 kg	Bottle	200 - 300 °C
24510055	45 pcs.	0.250 kg		
24510060	30 pcs.	0.500 kg		
24510070	15 pcs.	1.0 kg		

Furthermore we recommend using our flux-cored solder wire ISO-Core "AL", for description see pg. 9.

Flux
for silver and copper hard solders



Flux for copper and silver solders Cu-Rosil®

Paste, DIN EN 1045 - FH 10, hard solder flux for soldering of copper pipes in drinking water, heating, gas and oil installations in connection with brass and red brass fittings
DVGW mark of conformity: DV 0101 AT 2245 (FI 032)

Article No.	Content	PU	Effective temperature	Delivery form
26100050	0.100 kg	50 pcs.	500 - 800 °C	Plastic jar
26100055	0.250 kg	50 pcs.		
26100060	0.500 kg	25 pcs.		
26100070	1.0 kg	16 pcs.		

Flux for silver solders "CuFe Nr. 1"

Paste, DIN EN 1045 - FH 10, hard solder paste for soldering of copper, copper base alloys, steel and stainless steel

Flux for silver solders "CuFe P"

Powder, DIN EN 1045 - FH 10, hard solder powder for soldering of copper, copper base alloys, steel and stainless steel

Article No.	Content	PU	Effective temperature	Delivery form
261000501	0.100 kg	50 pcs.	500 - 800 °C	Paste / Plastic jar
261000551	0.250 kg	50 pcs.		
261000601	0.500 kg	25 pcs.		
261000701	1.0 kg	16 pcs.		
26150050	0.100 kg	50 pcs.	500 - 800 °C	Powder / Plastic jar
26150055	0.250 kg	50 pcs.		
26150060	0.500 kg	25 pcs.		
26150070	1.0 kg	16 pcs.		

Flux for silver solders "CuFe Nr. 1-Spezial"

Paste, DIN EN 1045 - FH 12, hard solder paste for soldering of hard metals, stainless and non-scaling steels

Article No.	Content	PU	Effective temperature	Delivery form
261000509	0.100 kg	50 pcs.	500 - 800 °C	Plastic jar
261000559	0.250 kg	50 pcs.		
261000609	0.500 kg	25 pcs.		
261000709	1.0 kg	16 pcs.		

Hard solder powder "UNIVERSAL"

DIN EN 1044 - FH 21
For hard soldering of copper, copper base alloys and steel, as well as for welding of brass.
To be used in combination with hard solders that have working temperatures higher than 800 °C.

Article No.	Content	PU	Effective temperature	Delivery form
26200050	0.100 kg	50 pcs.	800 - 1100 °C	Plastic jar
26200055	0.250 kg	50 pcs.		
26200060	0.500 kg	25 pcs.		
26200070	1.0 kg	16 pcs.		

Hard solder paste "UNIVERSAL"

DIN EN 1044 - FH 21
For hard soldering of copper, copper base alloys and steel, as well as for welding of brass.
To be used in combination with hard solders that have working temperatures higher than 800 °C.

Article No.	Content	PU	Effective temperature	Delivery form
26250050	0.100 kg	50 pcs.	800 - 1100 °C	Plastic jar
26250055	0.250 kg	50 pcs.		
26250060	0.500 kg	25 pcs.		
26250070	1.0 kg	16 pcs.		

Aluminium hard solder powder "Nr.1"

DIN EN 1045 - FL 10
Flux for hard soldering and welding of aluminium and aluminium base alloys, based on hygroscopic fluorides

Article No.	Content	PU	Effective temperature	Delivery form
26400050	0.100 kg	50 pcs.	approx. from 480 - 750 °C	Plastic jar
26400055	0.250 kg	50 pcs.		
26400060	0.500 kg	25 pcs.		
26400070	1.0 kg	16 pcs.		

Aluminium welding powder

Flux for gas welding of pure aluminium

Article No.	Content	PU	Effective temperature	Delivery form
26420050	0.100 kg	50 pcs.	500 - 750 °C	Plastic jar
26420055	0.250 kg	50 pcs.		
26420060	0.500 kg	25 pcs.		
26420070	1.0 kg	16 pcs.		

Cast iron welding powder

Flux for gas welding of cast iron

Article No.	Content	PU	Effective temperature	Delivery form
26500060	0.500 kg	25 pcs.	from 800 °C	Plastic jar
26500070	1.0 kg	16 pcs.		

Strewing powder for hardening of steel

Nitrogen-hardening powder for hardening of iron and unalloyed steels

Article No.	Content	PU	Effective temperature	Delivery form
26510060	0.500 kg	25 pcs.	ab 800 °C	Plastic jar
26510070	1.0 kg	16 pcs.		

Pickling agent 148

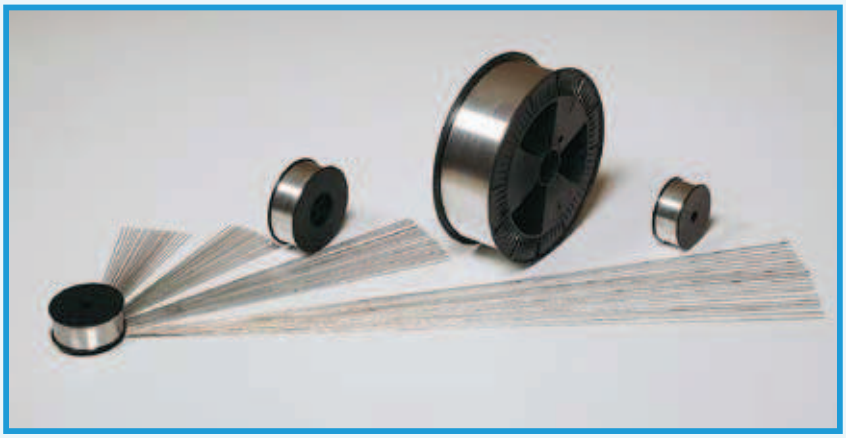
for removing hard solder flux residue

Article No.	Content	Delivery form	PU	Areas of application
26600070	1.0 l	Bottle	1 pce.	Copper and copper alloys
26600076	5.0 l	Canister		

FELDER - aluminium welding wires

for welding and hard soldering of aluminium and aluminium base alloys

Delivery forms	Diameters
1,000 mm rods	1.50 mm
	2.00 mm
	3.00 mm
	4.00 mm
	5.00 mm
0.500 kg, 2.0 kg and 5.0 kg spools	0.80 mm
	1.00 mm
	1.20 mm
	1.60 mm
	2.40 mm



Alloy DIN 1732	Material No.	Working temperature	For welding of the following base materials	Suitable* recommended** welding process
S-Al99.5	3.0259	approx. 650 - 660 °C	Al99 / Al99.5 E-Al99.5 E-AlMgSi	TIG* MIG* Gas welding*
S-Al99.8	3.0286	ca 660 °C	Al99.7 / Al99.8 E-Al99.5 E-AlMgSi	TIG** MIG** Gas welding*
S-Al99.5Ti	3.0805	approx. 650 - 660 °C	Al99 / Al99.5 AlMn	TIG** MIG** Gas welding**
S-AlMn	3.0516	approx. 650 - 660 °C	AlMn / AlMgMn AlMg1 / AlMg2 AlMg5 / AlMg23	TIG** MIG* Gas welding**
S-AlMg3	3.3536	approx. 580 - 640 °C	AlMg1-3 AlMgMn / AlMgSi0.5 G-AlMg3(Cu)	TIG** MIG* Gas welding**
S-AlMg5	3.3536	approx. 560 - 630 °C	AlMg3 / AlMg5 AlMgMn / AlMg4.5Mn AlMg3Si / AlMgSi1 AlZnMg alloys G-AlMg3(Cu) / G-AlMg5	TIG** MIG* Gas welding*
S-AlMg4.5Mn	3.3548	approx. 560 -630 °C	AlMg4.5Mn AlMg3 / AlMg5 AlZnMg1 G-AlMg3 / G-AlMg5 AlMgSi0.5 / AlMgSi1	TIG** MIG* Gas welding**
S-AlSi5	3.2245	approx. 570 - 630 °C	AlZnMg, AlCuMg alloys AlSi casting alloys with max. of 7 % Si	TIG** MIG** Gas welding**
S-AlSi12	3.2585	approx. 570 - 585 °C	AlSi casting alloys with more than 7 % Si	TIG** MIG* Gas welding**

Copper hard solder Cu-Rophos® 94

DIN EN 1044, CP 203, B-Cu94P, (L-CuP6, DIN 8513)
according to DVGW-Arbeitsblatt GW2 [worksheet]
for flux-free soldering of copper-to-copper joints
in oil, gas and liquefied gas installations as well as in heating and drinking water installations with piping larger than 28 x 1.5 mm.
When soldering brass or red brass, it is also necessary to use our Cu-Rosil® flux. Awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

Article No.	Size	PU	Delivery form
330115501	1.50 mm square x 500 mm	25.0 kg	1.0 kg box
330120501	2.00 mm square x 500 mm		
330130501	3.00 mm square x 500 mm		

Copper hard solder Cu-Rophos® 2

DIN EN 1044, CP 105; ISO 3677, B-Cu92PAg; DIN 8513, L-Ag2P
according to DVGW-Arbeitsblatt GW2 [worksheet]
for flux-free soldering of copper-to-copper joints
in oil, gas and liquefied gas installations as well as in heating and drinking water installations with piping larger than 28 x 1.5 mm.
When soldering brass or red brass, it is also necessary to use our Cu-Rosil® flux. Awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

Article No.	Size	PU	Delivery form
333115501	1.50 mm square x 500 mm	25.0 kg	1.0 kg box
333120501	2.00 mm square x 500 mm		
333130501	3.00 mm square x 500 mm		

HARTLOTE UND HARTLÖTFLUSSMITTEL FÜR KUPFERROHR
Gütezeichen RAL
Cu
RAL-RG 641/2

Copper hard solder Cu-Rophos® 5

DIN EN 1044, CP 104; ISO 3677, B-Cu89PAg; DIN 8513, L-Ag5P,
according to DVGW-Arbeitsblatt GW2 [worksheet],
for hard soldering of copper pipes in refrigeration and air conditioning applications

Article No.	Size	PU	Delivery form
33331550	1.50 mm square x 500 mm	25.0 kg	1.0 kg box
33332050	2.00 mm square x 500 mm		
33333050	3.00 mm square x 500 mm		

Copper hard solder Cu-Rophos® 15

DIN EN 1044, CP 102; ISO 3677, B-Cu80AgP; DIN 8513; L-Ag15P,
according to DVGW-Arbeitsblatt GW2 [worksheet],
for hard soldering of copper pipes in refrigeration and air conditioning applications

Article No.	Size	PU	Delivery form
33401550	1.50 mm square x 500 mm	25.0 kg	1.0 kg box
33402050	2.00 mm square x 500 mm		
33403050	3.00 mm square x 500 mm		

FELDER - copper hard solders

DIN EN 1044

Delivery forms	Sizes
500 mm rods, 1.0 kg rings, wire on spools, Strips as of 0.05 mm thick, max. width 70 mm. Preforms from wire, as rings or cuts, Preforms from strip as small plate or discs	1.50 mm 2.00 mm 3.00 mm 4.00 mm

Product name	ISO 3677	Composition (weight %)				Working tempera-ture	Tensile strength of soldering (N/mm²)	Density (g/cm²)	For hard soldering of following base materials
		Ag	Cu	P	Sn				
Cu-Rophos® 94 CP 203	B-Cu94P 710/890	-	94	6	-	730 °C	250	8.1	Copper to copper (without flux) Brass, red brass and copper/tin alloys with flux for silver solders Cu-Rosil® Not to be used with sulphureous materials Heat resistant up to 200 °C With gas or liquefied gas, heat resistant up to 150 °C
Cu-Rophos® 93 CP 202	B-Cu93P 710/820	-	93	7	-	720 °C	250	8.1	
Cu-Rophos® 92 CP 201	B-Cu92P 710/770	-	92	8	-	710 °C	250	8.0	
Cu-Rophos® 2 CP 105	B-Cu92PAg 645/825	2	91.5	6.5	-	710 °C	250	8.1	
Cu-Rophos® 5 CP 104	B-Cu89PAg 645/815	5	89	6	-	710 °C	250	8.2	
Cu-Rophos® 15 CP 102	B-Cu80AgP 645/800	15	80	5	-	710 °C	250	8.4	
Cu-Rophos® 18 CP 101	B-Cu75AgP 645/670	18	75	7	-	650 °C	250	8.4	
Cu-Rophos® 86 CP 302	B-Cu86SnP 645/695	-	86.25	6.75	7	690 °C	250	8.0	

Other alloys and sizes are available upon request.

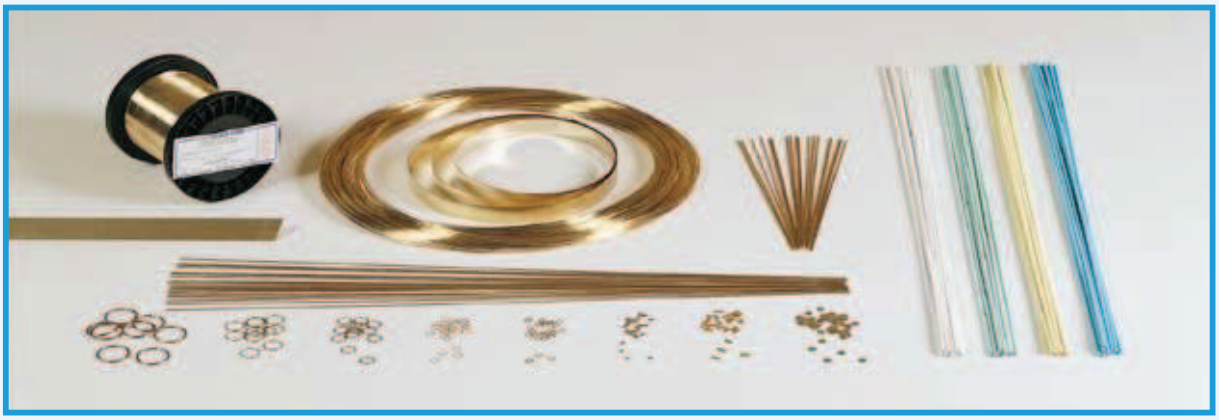
FELDER - silver hard solders (cadmium-free)

Delivery forms	Diameters
500 mm rods, 1.0 kg rings, wire on spools, other delivery forms upon request	1.00 mm
	1.50 mm
	2.00 mm
	3.00 mm
Flux-coated as per DIN EN 1045 - FH 10	1.50 mm
	2.00 mm
	3.00 mm

Product name DIN EN 1044	ISO 3677	Composition (weight %)					Working temp. (°C)	Tensile strength (N/mm²)	Density (g/cm²)	For hard soldering of the following base materials
		Ag	Cu	Zn	Ni	Rest				
AG 207 (L-Ag12)	B-Cu48ZnAg(Si) 800/830	12	48	40	-	-	830	400	8.5	Steel, copper, copper base alloys, nickel, nickel base alloys, malleable cast iron Heat resistant up to 300 °C
AG 206 (L-Ag20)	B-Cu44ZnAg(Si) 690/810	20	45	35	-	-	810	400	8.7	
AG 205 (L-Ag25)	B-Cu40ZnAg 700/790	25	41	34	-	-	780	400	8.8	
AG 203 (L-Ag44)	B-Ag44CuZn 675/735	44	30	26	-	-	730	450	9.1	Steel, copper, copper base alloys, nickel, nickel base alloys, malleable cast iron Heat resistant up to 200 °C
AG 107 (L-Ag30Sn)	B-Cu36ZnAgSn 665/755	30	36	32	-	2 Sn	740	430	8.8	
AG 106 (L-Ag34Sn)	B-Cu36AgZnSn 630/730	34	36	27	-	3 Sn	710	430	9.0	
AG 105 (L-Ag40Sn)	B-Ag40CuZnSn 650/710	40	30	28	-	2 Sn	690	400	9.1	
AG 104 (L-Ag45Sn)	B-Ag45CuZnSn 640/680	45	27	25	-	3 Sn	670	400	9.2	
AG 102* (L-Ag55Sn)	B-Ag56CuZnSn 620/655	56	22	17	-	5 Sn	650	400	9.4	*partly suitable for stainless steel
Ag 502 (L-Ag49)	B-Ag49ZnCuMnNi 680/705	49	17	22.5	5	6.5 Mn	690	300	8.9	Hard metal to steel, tungsten and molyb-denum materials
Ag 401 (L-Ag72)	B-Ag72Cu 780	72	28	-	-	-	780	340	10.0	Steel, stainless steel, copper, nickel and nickel alloys
Ag 403 (L-Ag56InNi)	B-Ag56CuInNi 600/710	56	26	-	4	14 In	730	300	9.5	

FELDER - silver hard solders (cadmium-containing)

Delivery forms	Diameters
500 mm rods, 1.0 kg rings, wire on spools, other delivery forms upon request	1.00 mm
	1.50 mm
	2.00 mm
	3.00 mm
Flux-coated as per DIN EN 1045 - FH 10	1.50 mm
	2.00 mm
	3.00 mm



Product name DIN EN 1044	ISO 3677	Composition (weight %)					Working temp. (°C)	Tensile strength (N/mm²)	Densi-ty (g/cm²)	For hard soldering of the following base materials
		Ag	Cu	Zn	Cd	Ni				
AG 309 (L-Ag20Cd)	B-Cu40ZnAgCd 605/765	20	40	25	15	-	750	410	8.8	Steel, precious metals, copper, copper base alloys, nickel, nickel base alloys Heat resistant up to 200 °C
AG 306 (L-Ag30Cd)	B-Ag30CuCdZn 600/690	30	28	21	21	-	680	420	9.2	
AG 305 (L-Ag34Cd)	B-Ag35ZnCuCd 610/700	34	22	24	20	-	640	430	9.1	
AG 304 (L-Ag40Cd)	B-Ag40ZnCdCu 595/630	40	19	21	20	-	610	450	9.3	

All of our cadmium-free and cadmium-containing silver hard solders are available as bare rods in the above sizes. Except for the alloys AG 205 (L-Ag25), AG 502 (L-Ag49) and AG 401 (L-Ag72), we coat our silver solders that have a diameter exceeding 1.5 mm with FH10 flux in accordance with DIN EN 1045.

FELDER - sandwich braze AG 502 (L-Ag49Cu)

Low-melting silver sandwich braze with copper layer for soldering hard metals to tool steel.
The copper layer is used to reduce the stresses occurring at the joint due to the very different expansion coefficients of the materials hard metal and steel.

For these applications we recommend using our flux for silver hard solders "CuFe No. 1-Spezial"

Product name and characteristics	Delivery forms	Strip thickness
AG 502 (L-Ag49Cu) Working temperature: 690 °C Operating temperature: 200 °C Tensile strength of soldering: min. 340 N/mm²	Strips up to width of max. 70 mm, preforms small plates or discs	0.20 mm
		0.30 mm
		0.40 mm

Brass and special brass hard solder

Brass hard solder

ISO 3677, B-Cu60Zn(Si)(Mn);
DIN EN 1044, CU 303 (formerly L-CuZn40, DIN 8513)
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze

Article No.	Size	Description	Working temperature	PU
30001500	1.50 mm x 1,000 mm	Solid rods	approx. 900 °C	25.0 kg
30002000	2.00 mm x 1,000 mm			
30002500	2.50 mm x 1,000 mm			
30003000	3.00 mm x 1,000 mm			
30004000	4.00 mm x 1,000 mm			
30005000	5.00 mm x 1,000 mm			
30006000	6.00 mm x 1,000 mm			

Other sizes are available upon request.

Brass hard solder "G"

ISO 3677, B-Cu60Zn(Si)(Mn);
DIN EN 1044, CU 303 (formerly L-CuZn40, DIN 8513)
flux-cored according to DIN EN 1044,
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze

Article No.	Size	Description	Working temperature	PU
30022550	2.50 x 2.50 x 500 mm	Flux-cored rods	approx. 900 °C	5.0 kg
30024050	4.00 x 4.00 x 500 mm			

Brass hard solder "UM"

ISO 3677, B-Cu60Zn(Si)(Mn);
DIN EN 1044, CU 303 (formerly L-CuZn40, DIN 8513)
flux-coated, DIN EN 1045 FH 21
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze

Article No.	Size	Description	Working temperature	PU
30012050	2.00 mm x 500 mm	Flux-coated rods	approx. 900 °C	5.0 kg
30012550	2.50 mm x 500 mm			
30013050	3.00 mm x 500 mm			
30014050	4.00 mm x 500 mm			

Special brass hard solder

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si);
DIN EN 1044, CU306 (formerly L-CuZn39Sn, DIN8513)
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze
- especially suited for hard soldering of galvanised sheet steel -

Article No.	Size	Description	Working temperature	PU
30102000	2.00 mm x 1,000 mm	Solid rods	approx. 900 °C	25.0 kg
30103000	3.00 mm x 1,000 mm			
30104000	4.00 mm x 1,000 mm			

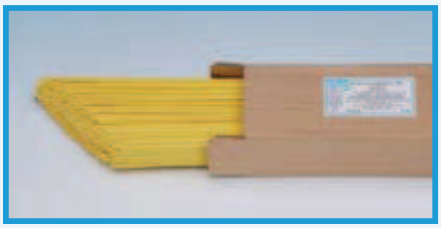
Special brass hard solder "G"

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si)
DIN EN 1044, CU306 (formerly L-CuZn39Sn, DIN8513)
flux-cored, DIN EN 1045 - FH 21
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze
- especially suited for hard soldering of galvanised sheet steel -

Article No.	Size	Description	Working temperature	PU
30122550	2.50 mm x 500 mm	Drilled, flux-cored rods	approx. 900 °C	5.0 kg
30123550	3.50 mm x 500 mm			

Special brass hard solder "UM"

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si);
DIN EN 1044, CU306 (formerly L-CuZn39Sn, DIN8513)
flux-coated, DIN EN 1045 - FH 21
for hard soldering of copper, nickel and steel, as well as for welding of brass and bronze
- especially suited for hard soldering of galvanised sheet steel -



Article No.	Size	Description	Working temperature	PU
30112050	2.00 mm x 500 mm	Flux-coated rods	approx. 900 °C	5.0 kg
30112550	2.50 mm x 500 mm			
30113050	3.00 mm x 500 mm			

Copper nickel brass hard solder

ISO 3677, B-Cu48ZnNi(Si);
DIN EN 1044, CU 305 (formerly L-CuNi10Zn42, DIN 8513)
for hard soldering of steel, malleable iron, nickel, nickel base alloys and cast iron

Article No.	Size	Description	Working temperature	PU
30202000	2.00 mm x 1,000 mm	Solid rods	approx. 900 °C	25.0 kg
30203000	3.00 mm x 1,000 mm			
30204000	4.00 mm x 1,000 mm			

Copper nickel brass hard solder "UM"

ISO 3677, B-Cu48ZnNi(Si);
DIN EN 1044, CU 305 (formerly L-CuNi10Zn42, DIN 8513)
flux-coated, DIN EN 1045 FH 21,
for hard soldering of steel, malleable iron, nickel, nickel base alloys and cast iron

Article No.	Size	Description	Working temperature	PU
30212050	2.00 mm x 500 mm	Flux-coated rods	approx. 900 °C	5.0 kg
30212550	2.50 mm x 500 mm			
30213050	3.00 mm x 500 mm			
30214050	4.00 mm x 500 mm			

Copper welding wire

S-Cu99.9 • S-CuSn • S-CuSi3 • S-CuAg

DIN 1733
1,000 mm rods, 25.0 kg boxes

Article No.	Diameters	Alloy	Melting range	Application
31002000	2.00 mm	S-Cu99.9	approx. 1.080 °C	Welding of copper materials
31003000	3.00 mm			
31004000	4.00 mm			
31012000	2.00 mm	S-CuSn	1.020 - 1.050 °C	TIG welding of copper piping
31013000	3.00 mm			
31014000	4.00 mm			
31022000	2.00 mm	S-CuSi3	910 - 1.025 °C	Welding of CuMn-, CuSiMn, CuZn alloys
31023000	3.00 mm			
31024000	4.00 mm			
31032000	2.00 mm	S-CuAg	1.070 - 1.080 °C	Gas welding of copper piping
31033000	3.00 mm			
31034000	4.00 mm			

Bronze welding wire

S-CuSn6 • S-CuSn12

DIN 1733
1,000 mm rods, 25.0 kg boxes

Article No.	Diameters	Alloy	Melting range	Application
31042000	2.00 mm	S-CuSn6	910 - 1.040 °C	Welding of CuSn alloys, surface welding
31043000	3.00 mm			
31044000	4.00 mm			
31052000	2.00 mm	S-CuSn12	910 - 1.040 °C	Welding of CuSn alloys, especially suited for wear-resistant cladding
31053000	3.00 mm			
31054000	4.00 mm			

Gas welding wire "G I"

DIN 8554, group G I
for joint welding of piping and sheeting
with **normal requirements**

Article No.	Size	Description	Tensile strength	PU
28101000	1.00 mm x 1,000 mm	Rods	380 N/mm²	25.0 kg box
28101500	1.50 mm x 1,000 mm			
28102000	2.00 mm x 1,000 mm			
28102500	2.50 mm x 1,000 mm			
28103000	3.00 mm x 1,000 mm			
28104000	4.00 mm x 1,000 mm			
28105000	5.00 mm x 1,000 mm			
28106000	6.00 mm x 1,000 mm			

Gas welding wire "G II"

DIN 8554, group G II
for joint welding of piping and sheeting
with **very stringent requirements**

Article No.	Size	Description	Tensile strength	PU
28202000	2.00 mm x 1,000 mm	Rods	420 N/mm²	25.0 kg box
28202500	2.50 mm x 1,000 mm			
28203000	3.00 mm x 1,000 mm			
28204000	4.00 mm x 1,000 mm			

Gas welding wire "G III"

DIN 8554, group G III
for joint welding of piping and sheeting
with **exacting requirements**

Article No.	Size	Description	Tensile strength	PU
28302000	2.00 mm x 1,000 mm	Rods	440 N/mm²	25.0 kg box
28302500	2.50 mm x 1,000 mm			
28303000	3.00 mm x 1,000 mm			
28304000	4.00 mm x 1,000 mm			

Other sizes are available upon request.

Solder liquid bottle – Acid bottle

refillable, made of plastic

Article No.	Delivery form	PU	Description
27110000	Solder liquid bottle (yel.)	150 pcs.	Content 150 ml, bottom size 60 x 60 mm
27120000	Acid bottle (blue)		

Simple-fix

new!

Empty container for refilling.
Consisting of solder liquid container, brush attachment and screw-type cap.

PU	Content	Delivery form
100 pcs.	25 ml	Simple-fix
100 pcs.	40 ml	
100 pcs.	100 ml	

Solder liquid brush

with metal body and natural bristles

Article No.	PU	Description
27130000	100 pcs.	Solder liquid brush with metal body and natural bristles, width approx. 10 mm

Cleaning fleece Cu-Rovlies

free of metal, for mechanical cleaning of soldered joint

Article No.	PU	Size	Delivery form
27140000	250 pcs.	approx. 60 mm x 130 mm	Packed in bundles of 10
27141000	1 pce.	130 mm x 10 m	Rolls

Sal ammoniac in blocks

for cleaning of soldering tips

Tinner

for cleaning and tinning of soldering tips
- especially in the field of electronics -

Article No.	Size	PU	Description
27100001	Stone No. 1	300 pcs.	65 x 45 x 20 mm
27100002	Stone No. 2	150 pcs.	65 x 45 x 40 mm
27100004	Stone No. 4	100 pcs.	100 x 50 x 25 mm in plastic jar
27100005	Stone No. 5	50 pcs.	200 x 45 x 40 mm
27100008	Stone No. 8	200 pcs.	100 g in can
27100010	Tinner	1 pce.	Tinner, 20 g can
27100011	Tinner-Lead-free	1 pce.	*new!* Tinner-Lead-free, 15 g can *new!*

De-solder braid

flux-saturated copper braid for unsoldering components
and removing excess solder on printed circuits

Article No.	Width	PU	Description
27161000	1.0 mm	100 pcs.	1.60 mm snap spool
27161500	1.5 mm		
27162000	2.0 mm		
27162500	2.5 mm		
27163000	3.0 mm		
27162030	2.0 mm	1 pce.	30 m spool
27162530	2.5 mm		

White vaseline

Protective agent, especially suited for electric connections,
e.g. battery terminals, battery connecting cables and car aerials,
free of resin and acid

Article No.	PU	Delivery form	Description
27180030	200 pcs.	Can	40 g can
27180097	100 pcs.	Tube	60 g tube

Separating sprays and metal spray paints

Silicon spray

Separating agent for inert gas shielded arc welding and electrode welding, prevents welding tips from sticking to the torch tips and workpieces

Article No.	PU	Delivery form	Content
27170000	12 pcs.	Spray can	400 ml

Separating spray, silicon-free

Separating agent for inert gas shielded arc welding and electrode welding, prevents welding tips from sticking to the torch tips and workpieces

Article No.	PU	Delivery form	Content
27172000	12 pcs.	Spray can	400 ml

Zinc spray

long-lasting corrosion protection for all metal surfaces, forms a quick-drying and adhering protective coating of micro-fine zinc dust

Article No.	PU	Delivery form	Content
27210000	12 pcs.	Spray can	400 ml

Aluminium spray

long-lasting corrosion protection for all metal surfaces, dries quickly and adheres to all metals, wood, ceramics, glass, etc.

Article No.	PU	Delivery form	Content
27211000	12 pcs.	Spray can	400 ml

Stainless steel spray

Corrosion protection based on acrylic resin and rustproof steel pigments, adheres to all metals, plastic, wood, stone and cardboard, heat-resistant for a short period up to 300 °C

Article No.	PU	Delivery form	Content
27212000	12 pcs.	Spray can	400 ml

Copper spray

dries quickly and adheres securely to metals and other surfaces, ideal for making improvements (e.g. soldered joints and welds)

Article No.	PU	Delivery form	Content
27213000	12 pcs.	Spray can	400 ml

Brass spray

dries quickly and adheres securely to metals and other surfaces, ideal for making improvements (e.g. soldered joints and welds)

Article No.	PU	Delivery form	Content
27214000	12 pcs.	Spray can	400 ml

Zinc/Aluminium spray

long-lasting corrosion protection for all metal surfaces, forms a quick-drying and adhering protective coating of micro-fine zinc dust

Article No.	PU	Delivery form	Content
27215000	12 pcs.	Spray can	400 ml

Company profile

FELDER GMBH was founded in 1979 in Duisburg, Germany, with the objective to provide a comprehensive range of soft and hard soldering products for a wide variety of business groups, be it sanitary, heating, hardware, roofing, automotive component and electronics sectors.

Since its inception, the company has evolved into a leading manufacturer of solders, fluxes, solder pastes and soldering accessories in Germany. Our strengths include flexibility and a broad assortment of products that is unique in Europe.

With the number of customers constantly growing, we had to expand our production area in 1986. As a result, we moved our operations to Oberhausen, where one of the most modern solder production facilities in Germany was erected.

In spite of expanding our facilities in 1991, we had to increase our production area and warehouse once again in 2005. We produce our soft solders, fluxes, solder pastes and the relevant accessories using state-of-the-art equipment on a total area covering roughly 4,500 m², including our current 4,000 m² production area.

In order to provide our customers with maximum quality at all times, we implement strict quality control in accordance with DIN EN ISO 9001:2000 during every phase of production from receipt of metals and chemiclas through to the finished products.

By maintaining this high quality standard, FELDER GMBH secures its market position for the future.

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