

FELDER

— seit 1979 —

LÖTTECHNIK

DELIVERY PROGRAM

The technology for soldering, brazing and welding.



High-quality joints from Oberhausen

FELDER GMBH has been producing first-class products for over 30 years. Our product range and services are perfectly orientated to the needs of our customers, making us the perfect partner in our specialist field: the development and production of solders, solder pastes and fluxes for soldering and brazing. The delivery program is just as diverse as the areas of application. Our products are used, for example, in solar and house technology, in roofing, in coachwork technology, in many industrial applications as well as in the highly developed electronic industry.

Whether for a zinc gutter on a roof, copper piping on a wall or for the circuit board in modern electrical appliances - with our soldering technology products we work to the best of our ability and grow every day in line with our assignments. So it seems only logical that our company site and premises also need to expand. The adjacent site in Lipperfeld became part of our location in 2012, so that the expansion of the modern equipped laboratory, office spaces and production halls and warehouses in Oberhausen can be started. Completion is planned for 2013.

Whilst we are expanding to over 7000 m², we are of course working as reliably as usual with our partners and for our customers in Germany and overseas. In recent decades we have emerged as the innovative market leader. The economic success and the consistently growing clientele acknowledges the work that we do. As one of the leading manufacturers of solders and fluxes in Europe, our products are naturally subject to continual quality control in our modern laboratory and comply with a high standard of quality according to the guidelines of ISO 9001:2008. Aspects concerning the environment are also strictly monitored and certified according to ISO 14001:2004.

Careful advice and customised problem solutions are part of our philosophy. Our extensive range of products makes us a very capable partner for industry and trade. By maintaining this high quality standard, FELDER GMBH secures its market position for the future.

We look forward to working together with you.

FELDER GMBH

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Your single source for soldering supplies! If you are unable to find the products for your specific requirements in this brochure, please do not hesitate to contact our sales department. We would be delighted to help you!

Soft solder rods

Acc. to DIN EN ISO 9453

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



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 rod, lead cable sheath, zinc and zinc alloys
12410122	S-Pb60Sn40	183 - 235 °C	Roofing tin for copper and zinc gutters
12510120	S-Pb50Sn50Sb	185 - 216 °C	Roofing tin, general soldering in metal craft
12610120	S-Sn60Pb40Sb	183 - 190 °C	Roofing tin, general soldering in metal craft
12970120	S-Sn97Cu3	230 - 250 °C	Lead-free tin solder for copper 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 iron / copper
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
12911000	Sn92Cu8	230 - ca. 350 °C	Pressed rods, lead-free coachwork tin
13761000	Sn90Zn7Cu3	200 - 280 °C	Pressed rods, lead-free coachwork tin

Our lead-free solders comply with the directives of RoHS and thus ElektroG.

* All electronic solders are available in other delivery forms: 400 g rods (330x20x10 mm), 1.0 kg rods (330x20x20 mm), 3.5 kg blocks (545x47x20 mm).

Soft solder in threads

Acc. to DIN EN ISO 9453

Delivery form	Sizes	PU
500 mm rods	2-3 mm	25.0 kg
500 mm rods	3-4 mm	25.0 kg
500 mm rods	4-5 mm	25.0 kg
500 mm rods	5-6 mm	25.0 kg



Alloy	Melting range	Description and application
S-Pb70Sn30	183 - 255 °C	Radiator construction
S-Pb65Sn35	183 - 245 °C	Radiator construction
S-Pb60Sn40	183 - 235 °C	Radiator construction
S-Pb50Sn50Sb	183 - 216 °C	Tiffany solder
S-Sn60Pb40Sb	183 - 190 °C	Tiffany solder

Aluminium soft solder

Tin-zinc alloys as rubbing solder

Triangular rod of 400 mm

Furthermore, for the soldering of aluminium we recommend using our flux-cored soft solder wire ISO-Core® "AL" (see page 9) and our aluminium soft solder paste (see page 15).



Article No.	Alloy	Melting range	PU	Delivery form
13600120	S-Sn60Zn40	200 - 340 °C	20 kg	Triangular rod
13610120	S-Sn70Zn30	200 - 325 °C	20 kg	Triangular rod
13630120	S-Sn90Zn10	200 - 250 °C	20 kg	Triangular rod
13463033	ZnAl4	382 - 387 °C	15 kg	Wire 3.0 mm x 335 mm

Bearing metal

Acc. to DIN EN ISO 4381

For lining bearing shells



Article No.	Alloy	PU	Delivery form
13090055	PbSb14SnCuAs (WM9)	1 pce.	8 - 10 kg block
13100055	PbSb15Sn10 (WM10)	1 pce.	8 - 10 kg block
13800055	SnSb12Cu6Pb (WM80)	1 pce.	8 - 10 kg block

Lead wool

In scraped quality

For sealing of earthenware ducts

Article No.	PU	Delivery form
13009199	50.0 kg	Bag



Solder wire ISO-Core® “RA“, “RA-05“, “RA-AT“

Flux-cored, halide activated soft solder wire

Flux acc. 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 %

Halogen content RA: 1.0%, RA-05: < 0.5%, RA-AT: 1.5%

Ø in mm 0.25 • 0.50 • 0.75 • 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range	Lead-free/lead-containing
Sn95.5Ag3.8Cu0.7	S-Sn95Ag4Cu1	Sn96Ag04Cu0.7	217 °C eutectic	
Sn97Ag3	S-Sn97Ag3	-	221 - 224 °C	
Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu.7	227 °C eutectic	Lead-free
Sn97Cu3	S-Sn97Cu3	-	230 - 250 °C	
Sn100Ni+	S-Sn99Cu1 (NiGe)	Fuji Patent	227 °C eutectic	
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C	
Sn60Pb38Cu2	S-Sn60Pb39Cu1	Sn60Pb38Cu02	183 - 190 °C	
Pb50Sn50	S-Pb50Sn50	Sn50Pb50	183 - 215 °C	Lead-containing
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C	
Pb70Sn30	S-Pb70Sn30	Sn30Pb70	183 - 255 °C	

Further alloys are available in our electronic delivery program.

Solder wire ISO-Core® “Clear“

Flux-cored, lead-free soft solder wire

Flux acc. to DIN EN 29454.1, 1.2.2.B

or DIN EN 61190-1-3, REM1

High-quality solder wire for manual and mechanical soldering in electrical engineering, electromechanics and electronics.

Standard flux content 3.5 %

Thermally stable • spatter-free • optimum wetting effect • crystal clear residues

Ø in mm 0.25 • 0.50 • 0.75 • 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range
Sn95.5Ag3.8Cu0.7	S-Sn95Ag4Cu1	Sn96Ag04Cu0.7	217 °C eutectic
Sn96.5Ag3Cu0.5	S-Sn96Ag3Cu1	Sn96Ag03Cu0.4	217 - 219 °C
Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu.7	227 °C eutectic
Sn100Ni+	S-Sn99Cu1 (NiGe)	Fuji Patent	227 °C eutectic

Further alloys are available in our electronic delivery program.

For fine soldering in electronics, electrical engineering as well as in 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 the solder wires does not cause corrosion with nonferrous metals. As a result, they do not have to be removed from the soldered joint. Our RA-AT was especially developed for mechanical soldering with short cycle times and high soldering temperatures.

Solder wire ISO-Core® "EL"

Flux-cored, halide-free activated soft solder wire

Flux acc. 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%.



Ø in mm 0.25 • 0.50 • 0.75 • 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg

Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range	Lead-free/lead-containing
Sn95.5Ag3.8Cu0.7	S-Sn95Ag4Cu1	Sn96Ag04Cu0.7	217 °C eutectic	
Sn97Ag3	S-Sn97Ag3	-	221 - 224 °C	
Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu.7	227 °C eutectic	Lead-free
Sn97Cu3	S-Sn97Cu3	-	230 - 250 °C	
Sn100Ni+	S-Sn99Cu1 (NiGe)	Fuji Patent	227 °C eutectic	
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C	
Sn60Pb38Cu2	S-Sn60Pb39Cu1	Sn60Pb38Cu02	183 - 215 °C	Lead-containing
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C	

Further alloys are available in our electronic delivery program.

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 residues of these solder wires do not cause corrosion with nonferrous metals and offer maximum surface resistance values. As a result, they do not have to be removed from the soldered joint.

The EL and ELR grades have been qualified by Siemens Berlin (Certification Body CT MM6) in connection with the lead-free alloy Sn95.5Ag3.8Cu0.7.

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, standard flux content 1.0 %.

Specifically adapted to the requirements of resoldering work on SMD-equipped modules.

Flux acc. to DIN EN 29454.1, 2.2.3.B or DIN EN 61190-1-3

ISO-Core® "ELS"

No-clean electronic grade solder wire based on synthetic resins, standard flux content 1.0 %.

Flux acc. to DIN EN 29454.1, 1.2.3.B or DIN EN 61190-1-3

Solder wire ISO-Core® "Kolo"

Flux-cored, halide activated soft solder wire

Flux acc. 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 %

Ø in mm 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C

Other alloys, sizes and delivery forms are available upon request.

Solder wire ISO-Core® "SP"

Flux-cored soft solder wire acc. to DIN EN ISO 9453

Flux acc. to DIN EN 29454.1, 2.1.3.B, standard 2.5 %.

For general soldering of copper and copper base alloys.

Ø in mm 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range
Pb70Sn30	S-Pb70Sn30	Sn30Pb70	183 - 255 °C
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 235 °C
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C
Sn97Cu3	S-Sn97Cu3	Sn97Cu3	230 - 250 °C

Other alloys, sizes and delivery forms are available upon request.

Solder wire ISO-Core® "KD"

Flux-cored soft solder wire acc. to DIN EN ISO 9453

Flux acc. to DIN EN 29454.1, 3.1.1.B, standard 2.5 %.

For general soldering of copper and copper base alloys.

Ø in mm 0.25 • 0.50 • 0.75 • 1.00 • 1.50 • 2.00 • 3.00 • 4.00

Spools 0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range
Pb50Sn50	S-Pb50Sn50	Pb50Sn50	185 - 216 °C
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C
Sn99.3Cu0.7	S-Sn99Cu1	Sn99Cu1	227 - °C

Other alloys, sizes and delivery forms are available upon request.

Solder wire ISO-Core® "AL"

Flux-cored soft solder wire for the soldering of aluminium and aluminium base alloys acc. to DIN EN 29454.1, 2.1.2.C

Flux content: 4 % standard

Diameter: 1.5 mm and 2.0 mm

Spool sizes: 0.10 • 0.25 • 0.50 • 1.00 kg



Alloy	DIN EN ISO 9453	Melting range
Sn97Cu3	S-Sn97Cu3	230 - 250 °C

Other alloys and delivery forms are available upon request.

Solder wire ISO-Core® "VA"

Flux-cored soft solder wire for the soldering of steel and stainless steel acc. to DIN EN 29454.1, 3.1.1.C

Flux content: 4 % standard

Diameter: 1.0 mm • 1.5 mm • 2.0 mm

Spool sizes: 0.10 • 0.25 • 0.50 • 1.00 kg



Alloy	DIN EN ISO 9453	Melting range
Sn96.5Ag3.5	S-Sn96Ag4	221 °C

Other alloys and delivery forms are available upon request.

Colophony - plumber's solder

Flux-cored soft solder wire for the soldering of copper and lead (lead sheathed cables)

Acc. to DIN EN 29454.1, 1.1.1.B

5.0 mm Ø, in rings of 1.00 kg and 5.00 kg



Alloy	DIN EN ISO 9453	Melting range
Pb70Sn30	S-Pb70Sn30	183 - 254 °C
Pb65Sn35	S-Pb65Sn35	183 - 245 °C
Pb60Sn40	S-Pb60Sn40	183 - 238 °C

Stearin - plumber's solder

Flux-cored soft solder wire for the soldering of lead piping and sheets

Acc. to DIN EN 29454.1, 2.2.3.B.

5.0 mm Ø, in rings of 1.00 kg and 5.00 kg



Alloy	DIN EN ISO 9453	Melting range
Pb70Sn30	S-Pb70Sn30	183 - 254 °C
Pb65Sn35	S-Pb65Sn35	183 - 245 °C
Pb60Sn40	S-Pb60Sn40	183 - 238 °C

Solder wire “Massiv“

(Without flux core)

Ø in mm	0.25 • 0.50 • 0.75 • 1.00 • 1.50 • 2.00 • 3.00 • 4.00
Spools	0.10 • 0.25 • 0.50 • 1.00 • 5.00 • 10.00 • 15.00 kg
Rings	1.00 • 5.00 kg



Alloy	DIN EN ISO 9453	DIN EN 61190	Melting range
Sn99.3Cu07	S-Sn99Cu1	Sn99Cu.7	227 °C eutectic
Sn100Ni+	S-Sn99Cu1 (NiGe)	Fuji Patent	227 °C eutectic
Sn97Cu3	S-Sn97Cu3	-	230 - 250 °C
Sn97Ag3	S-Sn97Ag3	-	221 - 224 °C
Sn95.5Ag3.8Cu0.7	S-Sn95Ag4Cu1	Sn96Ag04Cu0.7	217 °C eutectic
Sn99.9 (block tin)	-	Sn99	232 °C
Pb99.9 (lead)	-	-	327 °C
Sn60Pb40	S-Sn60Pb40	Sn60Pb40	183 - 190 °C
Sn50Pb50	S-Pb50Sn50	Sn50Pb50	183 - 215 °C
Pb60Sn40	S-Pb60Sn40	Sn40Pb60	183 - 238 °C

FELDER - special soft solders

In the following table 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 the alloy.

Melting range in °C		Rel. density g/m ³	Hardness HB	Tensile strength N/mm ²	Electrical conductivity m / Ω x mm ²
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
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
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	-	-	-

Other fusible alloys are available upon request.

Fitting solder Cu-Rotin®3

For the soft-soldering of copper pipes in drinking water and heating installations (up to 110 °C)

Predominantly in connection with our fitting solder paste **Cu-Rofix®3-Spezial** 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 spools	100 pcs.	2.00 mm	S-Sn97Cu3	230 - 250 °C
149720201	0.250 kg spools	50 pcs.	2.00 mm	S-Sn97Cu3	230 - 250 °C
14972710	0.100 kg spools	100 pcs.	2.70 mm	S-Sn97Cu3	230 - 250 °C
149727201	0.250 kg spools	50 pcs.	2.70 mm	S-Sn97Cu3	230 - 250 °C
14973020	0.250 kg spools	50 pcs.	3.00 mm	S-Sn97Cu3	230 - 250 °C

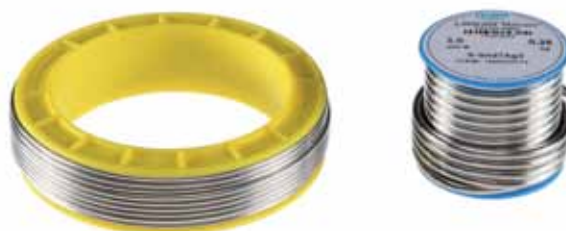
Other sizes and delivery forms are available upon request.

Fitting solder Cu-Rotin®4

For the soft-soldering of copper pipes in drinking water and heating installations (up to 110 °C)

Predominantly in connection with our fitting solder paste **Cu-Rofix®4-Spezial** in accordance with DVGW-Arbeitsblatt GW 2 [worksheet] awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

Also suited for the soldering of steel and stainless steel in connection with our solder oil "ST" or solder liquid "VA-NOX" (page 19)!



Article No.	Delivery form	PU	Diameter	Alloy	Melting range
14952010	0.100 kg spools	100 pcs.	2.00 mm	S-Sn97Ag3	221 - 224 °C
14952020	0.250 kg spools	50 pcs.	2.00 mm	S-Sn97Ag3	221 - 224 °C
14953010	0.100 kg spools	100 pcs.	3.00 mm	S-Sn97Ag3	221 - 224 °C
14953020	0.250 kg spools	50 pcs.	3.00 mm	S-Sn97Ag3	221 - 224 °C

Other sizes and delivery forms are available upon request.

Fitting solder paste Cu-Rofix® 3-Special

For the soft-soldering of copper pipes in drinking water and heating installations

DIN EN ISO 9453, S-Sn97Cu3, DIN EN 29454.1, 3.1.1.C (F-SW 21) in accordance with DVGW-Arbeitsblatt [worksheet] GW7, awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V. Metal content at least 60 %. The flux residues are soluble in cold water and can be easily removed through rinsing. DVGW mark of conformity: DV-0101 AT 2247



Article No.	Delivery form	PU	Alloy	Melting range
229760501	0.100 kg	100 pcs.	S-Sn97Cu3	230 - 250 °C
229760551	0.250 kg jar with brush holder	50 pcs.	S-Sn97Cu3	230 - 250 °C

Fitting solder paste Cu-Rofix® 3

For the soft-soldering of copper pipes in drinking water and heating installations

DIN EN ISO 9453, S-Sn97Cu3, DIN EN 29454.1, 3.1.1.C (F-SW 21) in accordance with DVGW-Arbeitsblatt [worksheet] GW7, awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V. Metal content at least 60 %. The flux residues are soluble in cold water and can be easily removed through rinsing. DVGW mark of conformity: DV-0101 AT 2244



Article No.	Delivery form	PU	Alloy	Melting range
2297605511	0.250 kg jar	50 pcs.	S-Sn97Cu3	230 - 250 °C

Fitting solder paste Cu-Rofix® 4-Special /Cu-Rofix® 4

For the soft-soldering of copper pipes in drinking water and heating installations

DIN EN ISO 9453, S-Sn97Ag3, DIN EN 29454.1, 3.1.1.C (F-SW 21) in accordance with DVGW-Arbeitsblatt [worksheet] GW7, awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

Metal content at least 60 %. The flux residues are soluble in cold water and can be easily removed through rinsing. DVGW mark of conformity: DV-0101 BR 5781



Cu-Rofix® 4-Special

Article No.	Delivery form	PU	Alloy	Melting range
229560501	0.100 kg jar	100 pcs.	S-Sn97Ag3	221 - 240 °C
229560551	0.250 kg jar with brush holder	50 pcs.	S-Sn97Ag3	221 - 240 °C

Cu-Rofix® 4

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

Soft solder flux Cu-Roplus®

For the soft-soldering of copper pipes in drinking water and heating installations

Paste-like flux acc. to DIN EN 29454.1, 3.1.1.C (F-SW 21) in accordance with DVGW-Arbeitsblatt GW7 [worksheet], awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

The flux residues are soluble in cold water and can be easily removed through rinsing.

DVGW mark of conformity: DV 0101 AT 2243



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

Soft solder flux Cu-Roflux®39

For the soft-soldering of copper pipes in drinking water and heating installations

Liquid flux according to DIN EN 29454.1, 3.1.1.A (F-SW 21) in accordance with DVGW-Arbeitsblatt GW7 [worksheet], awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V. The flux residues are soluble in cold water and can be easily removed through rinsing.

DVGW mark of conformity: DV-0101 AT 2246



Article No.	PU	Delivery form	Contents
24300150	50 pcs.	Bottle with brush insert	0.100 kg
24300155	45 pcs.	Bottle with brush insert	0.250 kg
24300160	30 pcs.	Bottle	0.500 kg
24300170	15 pcs.	Bottle	1.000 kg
24300185	1 pce.	Canister	30.000 kg
24300122	12 pcs.	Simple-fix	25 ml

Soft solder flux Cu-Roclean®

pH-neutral • dermatologically safe • environmentally safe

For soft soldering of copper piping in drinking water and heating installations

Zinc-chloride-free flux acc. to DIN EN 29454.1, 2.1.2.C (F-SW 25) in accordance with DVGW-Arbeitsblatt GW7 [worksheet], awarded the RAL mark of quality of Gütegemeinschaft Kupferrohr e.V.

The flux residues are soluble in cold water and can be easily removed through rinsing.



Article No.	PU	Delivery form	Contents
24350152	50 pcs.	Jar	0.125 kg

Soft solder and tinning paste

For the tinning of car body sheeting, among other things

Alloys according to DIN EN ISO 9453,
 Flux according to DIN EN 29454.1, 3.1.1.C (F-SW 21), metal content 60 - 70%
 ready-to-use metal paste

PU	Delivery form	Contents
50 pcs.	Bottle	0.100 kg
45 pcs.	Bottle	0.250 kg
30 pcs.	Bottle	0.500 kg
15 pcs.	Bottle	1.000 kg
10 pcs.	Can with brush insert	1.000 kg



Alloy	Melting range	Comments
S-Pb74Sn25Sb1	186 - 260 °C	Only available in 1.000 kg bottle
S-Pb60Sn40	183 - 215 °C	
S-Sn60Pb40	183 - 190 °C	
S-Sn97Cu3	230 - 250 °C	Lead-free - RoHS-compliant
S-Sn99.9%	232 °C	Lead-free - RoHS-compliant

Solar soft solder pastes FK 115

The outgassing of the flux residues 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 halides. We supply our solder pastes with various flux contents and thus are able to optimally adapt their viscosity to our customers' production process. Flux acc. to DIN EN 29454.1, 1.1.3.B - metal content 70-85 %.

Certified by the Institut für Solartechnik in Rapperswil



Product name	Alloy	Melting range	Delivery form
Solar soft solder paste FK 115	S-Sn97Cu3	230 - 250 °C	Cartridges of 1.000 kg Bucket of 12.500 kg / 25.000 kg

Aluminium soft solder paste

For the soft soldering of aluminium onto aluminium and aluminium onto copper

Predominantly used in refrigeration and air conditioning applications

The flux residues are corrosive. They can easily be removed by rinsing with water.



Product name	Alloy	Melting range	Delivery form
Aluminium soft solder paste	S-Sn97Cu3	230 - 250 °C	Bottles of 0.100 kg / 0.250 kg Cartridges of 0.900 kg Bucket of 12.500 kg / 25.000 kg

Solder liquid

Flux for general soldering to all metallic surfaces except aluminium and stainless steel.

DIN EN 29454.1, 3.1.1.A (F-SW 12)



Article No.	Delivery form	PU	Comments
24220021	Bottle	100 pcs.	25 ml bottle with brush insert
24220036	Bottle	100 pcs.	50 ml bottle with brush insert
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.	25.000 l canister

Solder grease

Flux for general soft soldering to copper and copper base alloys.

DIN EN 29454.1, 3.1.1.C (F-SW 21)



Article No.	Delivery form	PU	Comments
24310010	Jar	200 pcs.	20 g can
243100351	Jar	200 pcs.	50 g can
243100501	Jar	150 pcs.	100 g can
243100551	Jar	50 pcs.	250 g can
24310060	Bottle	25 pcs.	0.500 kg bottle
24310070	Bottle	16 pcs.	1.000 kg bottle
24310075	Bucket	1 pce.	5.000 kg bucket

“Allround“ soldering gel

Flux for soft soldering of all bright-rolled metals in the roofing trade

DIN EN 29454.1, 3.1.1.A



Article No.	Delivery form	PU	Comments
24120045	Simple-fix	12 pcs.	75 Simple-fix
24120060	Bottle	20 pcs.	0.500 kg bottle with brush insert

Solder liquid “ZD“

Flux for soft soldering of new and oxidised titanium zinc, galvanised sheet steel and refined zinc

DIN EN 29454.1, 3.2.2.A (F-SW 11)



Article No.	Delivery form	PU	Comments
24110050	Bottle	50 pcs.	0.100 kg bottle with brush insert
24110055	Bottle	45 pcs.	0.250 kg bottle with brush insert
24110060	Bottle	30 pcs.	0.500 kg bottle
24110070	Bottle	15 pcs.	1.000 kg bottle
24110085	Canister	1 pce.	25.000 kg canister
24110022	Simple-fix	12 pcs.	25 ml Simple-fix

Solder liquid “ZD - Spezial“

Flux for soft soldering of highly oxidised zinc plate, galvanised sheet steel and refined zinc

DIN EN 29454.1, 3.1.1.A



Article No.	Delivery form	PU	Comments
24110270	Bottle	15 pcs.	1.000 kg bottle

Solder liquid “ZD - pro“

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

Article No.	Delivery form	PU	Comments
24110550	Bottle	50 pcs.	0.100 kg bottle with brush insert
24110570	Bottle	15 pcs.	1.000 kg bottle
24110522	Simple-fix	12 pcs.	25 ml Simple-fix



Solvent “pro“

For the pre-treatment of RHEINZINK® "preweathered-pro" and "slate grey"

Article No.	Delivery form	PU	Comments
24890070	Bottle	15 pcs.	1.000 kg bottle
24890022	Simple-fix	12 pcs.	25 ml Simple-fix



Solder liquid solvent - set “pro“

Consisting of:
Solder liquid “ZD - pro“, 25 ml Simple-fix
Solvent “pro“, 25 ml Simple-fix

Article No.	Delivery form	PU	Comments
363624110522	Simple-fix	30 pcs.	2 x 25 ml Simple-fix in a set



Solder liquid “ZD - Quartz“

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

Article No.	Delivery form	PU	Comments
24110670	Bottle	15 pcs.	1.000 kg bottle
24110622	Simple-fix	12 pcs.	25 ml Simple-fix



Solder oil "ST"

Flux for soft soldering of steel and stainless steel

DIN EN 29454.1, 3.2.2.A (F-SW11)

For soft soldering of stainless steel we recommend using our ISO-Core® "VA" flux-cored solder wire.

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



Solder liquid "VA-NOX"

Flux for soft soldering of stainless steel roofing sheets.

DIN EN 29454.1, 3.2.1.A (F-SW 11) - zinc-chloride-free

Recommended by the "Informationsstelle Edelstahl Rostfrei"

Article No.	Delivery form	PU	Description
24010070	Bottle	15 pcs.	1000 ml bottle
24010022	Simple-fix	12 pcs.	25 ml Simple-fix



Solder liquid "KD"

Flux for soft soldering of copper gutters and downpipes

DIN EN 29454.1, 3.1.1.A (F-SW 21)

Article No.	Delivery form	PU	Description
24300050	Bottle	50 pcs.	0.100 kg bottle with brush insert
24300055	Bottle	45 pcs.	0.250 kg bottle with brush insert
24300060	Bottle	30 pcs.	0.500 kg bottle
24300070	Bottle	15 pcs.	1.000 kg bottle
24300022	Simple-fix	12 pcs.	25 ml Simple-fix



Solder pen "SP"

Flux for soft soldering of copper, copper base alloys, zinc, galvanised sheet steel and iron

DIN EN 29454.1, 3.1.1.C (F-SW21)

Soft solder flux, coated with a soldering tin foil. Especially suited for electrical installation, in particular soldering cables.



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

Stearin rods

Flux for soft soldering of lead piping and sheeting

DIN EN 29454.1, ROLO.



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

Aluminium soft solder flux

Flux for soft soldering of aluminium and aluminium base alloys

DIN EN 29454.1, 2.1.2.C (F-LW 2)



Article No.	PU	Contents	Delivery form	Effective temperature
24510050	100 pcs.	0.100 kg	Bottle	200 - 300 °C
24510055	45 pcs.	0.250 kg	Bottle	200 - 300 °C
24510060	30 pcs.	0.500 kg	Bottle	200 - 300 °C
24510070	15 pcs.	1.000 kg	Bottle	200 - 300 °C

Flux for silver solders **Cu-Rosil®**

Hard solder flux for soldering of copper pipes in drinking water, heating, gas and oil installations in connection with brass and red brass fittings

Paste, DIN EN 1045 - FH 10, effective temperature: 500 - 800 °C
DVGW mark of conformity: DV 0101 AT 2245



Article No.	PU	Delivery form
26100050	50 pcs.	0.100 kg jar
26100055	50 pcs.	0.250 kg jar
26100060	25 pcs.	0.500 kg jar
26100070	16 pcs.	1.000 kg jar

Flux for silver solders “CuFe Nr. 1“

Hard solder paste for soldering of copper, copper base alloys, steel and stainless steel

Paste, DIN EN 1045 - FH 10, effective temperature: 500-800 °C

Article No.	PU	Delivery form
261000501	50 pcs.	0.100 kg jar
261000551	50 pcs.	0.250 kg jar
261000601	25 pcs.	0.500 kg jar
261000701	16 pcs.	1.000 kg jar



Flux for silver solders “CuFe P“

Hard solder powder for soldering of copper, copper base alloys, steel and stainless steel

Powder, DIN EN 1045 - FH 10, effective temperature: 500-800 °C

Article No.	PU	Delivery form
26150050	50 pcs.	0.100 kg jar
26150055	50 pcs.	0.250 kg jar
26150060	25 pcs.	0.500 kg jar
26150070	16 pcs.	1.000 kg jar



Flux for silver solders “CuFe Nr. 1 Spezial“

Hard solder paste for soldering of hard metals, stainless and non-scaling steels

Paste, DIN EN 1045 - FH 12, effective temperature: 500-800 °C

Article No.	PU	Delivery form
261000509	50 pcs.	0.100 kg jar
261000559	50 pcs.	0.250 kg jar
261000609	25 pcs.	0.500 kg jar
261000709	16 pcs.	1.000 kg jar



Hard solder powder “UNIVERSAL“

For hard soldering of copper, copper base alloys and steel as well as for the welding of brass

DIN EN 1045 - FH 21, effective temperature: 800-1100 °C

To be used in combination with hard solders that have working temperatures higher than 800 °C.

Article No.	PU	Delivery form
26200050	50 pcs.	0.100 kg jar
26200055	50 pcs.	0.250 kg jar
26200060	25 pcs.	0.500 kg jar
26200070	16 pcs.	1.000 kg jar



Hard solder paste “UNIVERSAL“

For hard soldering of copper, copper base alloys and steel as well as for the welding of brass

DIN EN 1045 - FH 21, effective temperature: 800-1100 °C

To be used in combination with hard solders that have working temperatures higher than 800 °C.

Article No.	PU	Delivery form
26250050	50 pcs.	0.100 kg jar
26250055	50 pcs.	0.250 kg jar
26250060	25 pcs.	0.500 kg jar
26250070	16 pcs.	1.000 kg jar



Aluminium hard solder powder “Nr.1“

Flux for hard soldering and welding of aluminium and aluminium base alloys, based on hygroscopic fluorides

DIN EN 1045 - FH 10, effective temperature: 480-750 °C

Article No.	PU	Delivery form
26400050	50 pcs.	0.100 kg jar
26400055	50 pcs.	0.250 kg jar
26400060	25 pcs.	0.500 kg jar
26400070	16 pcs.	1.000 kg jar



Aluminium welding powder

Flux for gas welding of pure aluminium

Effective temperature: 500-750 °C

Article No.	PU	Delivery form
26420050	50 pcs.	0.100 kg jar
26420055	50 pcs.	0.250 kg jar
26420060	25 pcs.	0.500 kg jar
26420070	16 pcs.	1.000 kg jar



Strewing powder for hardening of steel

Nitrogen-hardening powder for hardening of iron and unalloyed steels

Effective temperature: from 800 °C

Article No.	PU	Delivery form
26510060	25 pcs.	0.500 kg jar
26510070	16 pcs.	1.000 kg jar



Pickling agent 148

For removing hard solder flux residues

Article No.	PU	Delivery form
26600070	1 pce.	1.000 kg bottle
26600076	1 pce.	5.000 l canister



Copper hard solder Cu-Rophos® 94

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.

DIN EN ISO 17672, CuP 179; (L-CuP6, DIN 8513) in accordance to DVGW-Arbeitsblatt GW2 [worksheet]



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	25.0 kg	1.0 kg box
330130501	3.00 mm square x 500 mm	25.0 kg	1.0 kg box

Copper hard solder Cu-Rophos® 2

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.

DIN EN ISO 17672, CuP 279; (L-Ag2P, DIN 8513) in accordance to DVGW-Arbeitsblatt GW2 [worksheet]



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	25.0 kg	1.0 kg box
333130501	3.00 mm square x 500 mm	25.0 kg	1.0 kg box

Copper hard solder Cu-Rophos® 5

For hard soldering of copper pipes in refrigeration and air conditioning applications

DIN EN ISO 17672, CuP 281; (L-Ag5P, DIN 8513) in accordance to DVGW-Arbeitsblatt GW2 [worksheet]



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	25.0 kg	1.0 kg box
33333050	3.00 mm square x 500 mm	25.0 kg	1.0 kg box

Copper hard solder Cu-Rophos® 15

For hard soldering of copper pipes in refrigeration and air conditioning applications

DIN EN ISO 17672, CuP 284; (L-Ag15P, DIN 8513) in accordance to DVGW-Arbeitsblatt GW2 [worksheet]



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	25.0 kg	1.0 kg box
33403050	3.00 mm square x 500 mm	25.0 kg	1.0 kg box

When soldering our Cu-Rophos-copper hard solders to brass or red brass, it is also necessary to use our Cu-Rosil® flux.



Product name	DIN EN ISO 17672	Composition (weight %)			Working temperature	Tensile strength of the soldering (N/mm ²)	Density (g/cm ³)	Applica- tion range in °C	For hard soldering of the following base materials
		Ag	Cu	P					
Cu-Rophos®94 (CP 203)	CuP179	-	94	6	760 °C	250	8.1	-50 to +150	Copper to copper (without flux)
Cu-Rophos®93 (CP 202)	CuP181	-	93	7	730 °C	250	8.1		Brass, red brass and copper/tin alloys with flux for silver solders Cu-Rosil®
Cu-Rophos®92 (CP 201)	CuP182	-	92	8	720 °C	250	8.0		
Cu-Rophos®2 (CP 105)	CuP279	2	91.5	6.5	740 °C	250	8.1	-50 to +150	Not to be used with sulphurous materials
Cu-Rophos®5 (CP 104)	CuP281	5	89	6	710 °C	250	8.2	-50 to +150	
Cu-Rophos®15 (CP 102)	CuP284	15	80	5	700 °C	250	8.4	-70 to +150	Heat-resistant up to 200 °C
Cu-Rophos®18 (CP 101)	CuP286	18	75	7	650 °C	250	8.4		

Other alloys and sizes are available upon request.

Delivery form

500 mm rods, 1 kg manufacturing rings, wire on spools, strips 0.05 mm thick and up, max. width 70 mm, preforms from wire, as rings or cuts, preforms from strip, as small plates or discs.

Sizes

1.5 mm • 2.0 mm
3.0 mm • 4.0 mm

Cu-Rophos® - NanoTech

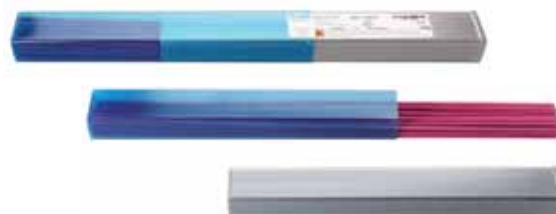
We also provide the copper hard solders **Cu-Rophos® 94 - 2 - 5 - 15** in the quality of "NanoTech". The phosphorous content in the solder is precisely distributed in defined micro-particles through a special production process. As a result, the hard solder provides the specific advantages of the NanoTech alloys.

- Excellent wetting effect
- Splash-free drainage
- Non-porous soldered joints





Delivery form	Sizes
500 mm rods, 1 kg manufacturing rings, wire on spools, preformed solders	1.0 mm 1.5 mm
Flux-coated as per DIN EN 1045 - FH10 diameter greater than 1.5 mm	2.0 mm 3.0 mm



Product name	DIN EN ISO 17672	Composition (weight %)					Working temperature	Tensile strength of the soldering (N/mm ²)	Density (g/cm ³)	For hard soldering of the following base materials
		Ag	Cu	Zn	Ni	Rest				
AG 207 (L-Ag12)	Ag 212	12	48	40	-	-	830	400	8.5	Steel, copper, copper base alloys, nickel, nickel base alloys, malleable cast iron
AG 206 (L-Ag20)	BCu44ZnAg(Si) ISO 3677	20	45	35	-	-	810	400	8.7	Heat resistant up to 300 °C
AG 205 (L-Ag25)	Ag 225	25	40	35	-	-	780	400	8.8	
AG 203 (L-Ag44)	Ag 244	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)	Ag 130	30	36	32	-	2 Sn	740	430	8.8	
AG 106 (L-Ag34Sn)	Ag 134	34	36	27.5	-	2.5 Sn	710	430	9.0	
AG 105 (L-Ag40Sn)	Ag 140	40	30	28	-	2 Sn	690	400	9.1	
AG 104 (L-Ag45Sn)	Ag 145	45	27	25.5	-	2.5 Sn	670	400	9.2	
AG 102* (L-Ag55Sn)	Ag 156	56	22	17	-	5 Sn	650	400	9.4	*Partly suitable for stainless steel
Ag 502 (L-Ag49)	Ag 449	49	16	23	7.5	4.5 Mn	690	300	8.9	Hard metal to steel, tungsten and molybdenum materials
Ag 401 (L-Ag72)	Ag 272	72	28	-	-	-	780	340	10.0	Steel, stainless steel, nickel and nickel base alloys
Ag 403 (L-Ag56InNi)	B-Ag56CuInNi ISO 3677	56	26	-	4	14 In	730	300	9.5	

FELDER - sandwich braze AG 502 (L-Ag49Cu)

Low-melting silver solder with copper sandwich layer for soldering of hard metals to tool steel

The copper layer is used to reduce the stresses occurring at the soldered joint due to the very different expansion coefficients of the hard metal and steel materials.

For these applications we recommend using our flux for silver hard solders "CuFe Nr. 1 Spezial".

Product name and characteristics	Delivery form	Strip thickness
AG 502 (L-Ag49Cu)		0.2 mm
Working temperature 690 °C	Strips up to width of max. 70 mm, preforms as small plates or discs	0.3 mm
Operating temperature: 200 °C		
Tensile strength of the soldering: min. 340 N/mm ²		0.4 mm

Brass hard solder

For hard soldering of copper, nickel and steel as well as for welding of brass and bronze

ISO 3677, B-Cu60Zn(Si)(Mn);
 DIN EN ISO 17672, Cu 670 (formerly L-CuZn40, DIN 8513)
 Density: 8.4 g/m³



Article No.	Size	Description	Working temperature	PU
30001500	1.50 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30002000	2.00 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30002500	2.50 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30003000	3.00 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30004000	4.00 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30005000	5.00 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg
30006000	6.00 mm x 1000 mm	Solid rods	approx. 900 °C	25 kg

Other sizes are available upon request.

Brass hard solder "G"

**For hard soldering of copper, nickel and steel
as well as for welding of brass and bronze**

ISO 3677, B-Cu60Zn(Si)(Mn), DIN EN ISO 17672, Cu 670
(formerly L-CuZn40, DIN 8513), working temperature approx. 900 °C
flux-cored as per DIN EN 1045 - FH 21



Article No.	PU	Size	Description
30022550	5 kg	2.50 x 2.50 x 500 mm	Flux-cored rods
30024050	5 kg	4.00 x 4.00 x 500 mm	Flux-cored rods

Brass hard solder "UM"

**For hard soldering of copper, nickel and steel
as well as for welding of brass and bronze**

ISO 3677, B-Cu60Zn(Si)(Mn), DIN EN ISO 17672, Cu 670
(formerly L-CuZn40, DIN 8513), working temperature approx. 900 °C
flux-coated according to DIN EN 1045 - FH 21



Article No.	PU	Size	Description
30012050	5 kg	2.00 mm x 500 mm	Flux-coated rods
30012550	5 kg	2.50 mm x 500 mm	Flux-coated rods
30013050	5 kg	3.00 mm x 500 mm	Flux-coated rods
30014050	5 kg	4.00 mm x 500 mm	Flux-coated rods

Special brass hard solder

**For hard soldering of copper, nickel and steel
as well as for welding of brass and bronze**

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si) DIN EN ISO 17672, Cu 681
(formerly L-CuZn39Sn, DIN 8513), working temperature approx. 900 °C
Density: 8.4 g/m³

-Suited for hard soldering of galvanised sheet steel-



Article No.	PU	Size	Description
30102050	25 kg	2.00 mm x 500 mm	Solid rods
30103050	25 kg	3.00 mm x 500 mm	Solid rods
30104050	25 kg	4.00 mm x 500 mm	Solid rods

Special brass hard solder "G"

For hard soldering of copper, nickel and steel as well as for welding of brass and bronze

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si) DIN EN ISO 17672, Cu 681
 formerly L-CuZn39Sn, DIN8513), working temperature approx. 900 °C
 flux-cored, DIN EN 1045 - FH 21

-Especially suited for hard soldering of galvanised sheet steel-

Article No.	PU	Size	Description
30122550	5 kg	2.50 mm x 500 mm	Drilled, flux-cored rods
30123550	5 kg	3.50 mm x 500 mm	Drilled, flux-cored rods



Special brass hard solder "UM"

For hard soldering of copper, nickel and steel as well as for welding of brass and bronze

ISO 3677, B-Cu59ZnSn(Ni)(Mn)(Si), DIN EN ISO 17672, Cu 681
 (formerly L-CuZn39Sn, DIN8513), working temperature approx. 900 °C
 flux-coated, DIN EN 1045 - FH 21

-Especially suited for hard soldering of galvanised sheet steel-

Article No.	PU	Size	Description
30112050	5 kg	2.00 mm x 500 mm	Flux-coated rods
30112550	5 kg	2.50 mm x 500 mm	Flux-coated rods
30113050	5 kg	3.00 mm x 500 mm	Flux-coated rods



Copper nickel brass hard solder

For hard soldering of steel, malleable cast iron, nickel, nickel base alloys and cast iron

ISO 3677, B-Cu48ZnNi(Si), DIN EN ISO 17672, Cu 773
 (formerly L-CuNi10Zn42, DIN 8513), working temperature approx. 900 °C, density: 8.7 g/

Article No.	PU	Size	Description
30202000	25 kg	2.00 mm x 1000 mm	Solid rods
30203000	25 kg	3.00 mm x 1000 mm	Solid rods
30204000	25 kg	4.00 mm x 1000 mm	Solid rods



Copper nickel brass hard solder "UM"

For hard soldering of steel, malleable cast iron, nickel, nickel base alloys and cast iron

ISO 3677, B-Cu48ZnNi(Si), DIN EN ISO 17672, Cu 773
 (formerly L-CuNi10Zn42, DIN 8513), working temperature approx. 900 °C
 flux-coated, DIN EN 1045 - FH 21

Article No.	PU	Size	Description
30212050	5 kg	2.00 mm x 500 mm	Flux-coated rods
30212550	5 kg	2.50 mm x 500 mm	Flux-coated rods
30213050	5 kg	3.00 mm x 500 mm	Flux-coated rods
30214050	5 kg	4.00 mm x 500 mm	Flux-coated rods



Copper welding wire

S-Cu99.9 • S-CuSn • S-CuSi3 • S-CuAg

DIN 1733
1,000 mm rods, 25.0 kg boxes



Article No.	Diameter	Alloy	Density / g/m ³	Melting range	Application
31002000	2.00 mm	S-Cu99.9	8.9	approx. 1,080 °C	Welding of copper materials
31003000	3.00 mm				
31004000	4.00 mm				
31012000	2.00 mm	S-CuSn	8.9	1,020 - 1,050 °C	TIG welding of copper piping
31013000	3.00 mm				
31014000	4.00 mm				
31022000	2.00 mm	S-CuSi3	8.5	910 - 1,025 °C	Welding of CuMn, CuSiMn, CuZn alloys
31023000	3.00 mm				
31024000	4.00 mm				
31032000	2.00 mm	S-CuAg	8.9	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.	Diameter	Alloy	Density / g/m ³	Melting range	Application
31042000	2.00 mm	S-CuSn6	8.7	910 - 1,040 °C	Welding of CuSn alloys, surface welding
31043000	3.00 mm				
31044000	4.00 mm				
31052000	2.00 mm	S-CuSn12	8.6	825 - 990 °C	Welding of CuSn alloys, especially suited for wear-resistant surfacing
31053000	3.00 mm				
31054000	4.00 mm				

FELDER Aluminium welding wires

For welding and hard soldering of aluminium and aluminium base alloys

Delivery forms	Diameter
1000 mm rods	1.5 mm
	2.0 mm
	3.0 mm
	4.0 mm
	5.0 mm
0.5 kg, 2.0 kg, 7.0 kg Spools	0.8 mm
	1.0 mm
	1.2 mm
	1.6 mm
	2.4 mm



Alloy DIN 1732	Material No.	Working temperature	For welding of following base materials	Appropriate* 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	approx. 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 cast alloys with max. 7 % Si	TIG** MIG** Gas welding**
S-AlSi12	3,2585	approx. 570 - 585 °C	AlSi cast alloys with more than 7 % Si	TIG** MIG* Gas welding**

Gas welding wire G I

For joint welding of piping and sheeting with normal requirements

DIN 8554, group G I



Article No.	Size	Description	Tensile strength	PU
28101000	1.00 mm x 1000 mm	Rods	380 N/mm ²	25 kg boxes
28101500	1.50 mm x 1000 mm			
28102000	2.00 mm x 1000 mm			
28102500	2.50 mm x 1000 mm			
28103000	3.00 mm x 1000 mm			
28104000	4.00 mm x 1000 mm			
28105000	5.00 mm x 1000 mm			
28106000	6.00 mm x 1000 mm			

Gas welding wire G II

For joint welding of piping and sheeting with very stringent requirements

DIN 8554, group G II



Article No.	Size	Description	Tensile strength	PU
28202000	2.00 mm x 1000 mm	Rods	420 N/mm ²	25 kg boxes
28202500	2.50 mm x 1000 mm			
28203000	3.00 mm x 1000 mm			
28204000	4.00 mm x 1000 mm			

Gas welding wire G III

For joint welding of piping and sheeting with exacting requirements

DIN 8554, group G III



Article No.	Size	Description	Tensile strength	PU
28302000	2.00 mm x 1000 mm	Rods	440 N/mm ²	25 kg boxes
28302500	2.50 mm x 1000 mm			
28303000	3.00 mm x 1000 mm			
28304000	4.00 mm x 1000 mm			

Solder liquid bottle - Acid bottle

Refillable, made of plastic



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

Solder liquid brush

With metal body and natural bristles
 or made of plastic



Article No.	PU	Description
27130000	100 pcs.	Solder liquid brush with metal body and natural bristles, width approx. 10 mm
27130027	50 pcs.	Plastic brush, 120 mm long, trim length 15 mm

Cleaning fleece Cu-Rovlies

Free of metal, for mechanical cleaning of the soldered joint



Article No.	PU	Size	Delivery form
27140000	250 pcs.	approx. 130 mm x 60 mm	Packed in bundles of 10
27140025	250 pcs.	approx. 130 mm x 60 mm	Loose in box
27141000	1 pce.	approx. 130 mm x 10 mm	Rolls

Cassiterite

For cleaning and tinning of copper pieces in the roofing field - sal ammoniac-free - lead-free

Article No.	Size	PU	Description
27100009	Cassiterite	50 pcs.	100 g in cans



Sal ammoniac in blocks

For cleaning of soldering tips

Article No.	Size	PU	Description
27100001	Stone No. 1	300 pcs.	65x 45 x 20 mm
27100002	Stone No. 2	150 pcs.	65x 45 x 40 mm
27100004	Stone No. 4	100 pcs.	ca. 100 x 50 x 25 mm in plastic jar
27100008	Stone No. 8	200 pcs.	100 g in can



Tinner

For cleaning and tinning of soldering tips
for cleaning soldering tips in electronics

Article No.	Size	PU	Description
27100011	Tinner lead-free	1 pce.	Tinner lead-free, 15 g can



De-solder braid

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

Article No.	Size	PU	Description
27161000	1.0 mm	100 pcs.	1.6 m snap spool
27161500	1.5 mm	100 pcs.	1.6 m snap spool
27162000	2.0 mm	100 pcs.	1.6 m snap spool
27162500	2.5 mm	100 pcs.	1.6 m snap spool
27163000	3.0 mm	100 pcs.	1.6 m snap spool
27162030	2.0 mm	1 pce.	30 m spools
27162530	2.5 mm	1 pce.	30 m spools



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	Description
27180030	200 pcs.	40 g can
27180097	100 pcs.	60 g Tube

Heat protection mat

- Fire-proof and flame-retardant
- Asbestos-free and ceramic fibre-free

Heat-resistant up to 700 °C



Article No.	PU	Size
27300000	1 pce.	500 mm x 330 mm

Internal pipe cleaner brushes

With wooden handle and stainless steel trim

Packed in boxes, for mechanical cleaning of copper fittings



Article No.	PU	Size
27149004	100 pcs.	12 mm
27149000	100 pcs.	15 mm
27149001	100 pcs.	18 mm
27149002	100 pcs.	22 mm
27149003	100 pcs.	28 mm
27149005	100 pcs.	35 mm

Sealing hemp for pipe thread

1a quality,

For sealing of metallic thread connections in hot and cold water installations and heating and gas installations

Article No.	PU	Delivery form
27550055	62 pcs.	Tied in braids to approx. 220 g (1 PU approx. 12.6 kg)



Hemp dispenser

Article No.	PU	Delivery form
27550040	25 pcs.	40 g in plastic dispenser
27550039	1 pce.	40 g substitute spool for dispenser
27550052	12 pcs.	80 g in plastic dispenser
27550053	1 pce.	80 g substitute spool for dispenser



Hemp spools

Article No.	PU	Delivery form
27550050	1 pce.	80 g rolled loose on cardboard tubing
27550051	1 pce.	80 g FELDER plastic dispenser, without contents



Hemp ball

Article No.	PU	Delivery form
27550100	8 pcs.	100 g wrapped in foil



FELDER thread sealing paste

For metallic thread connections with hemp, according to DIN EN 751-2 approved for house installation of gas and drinking water pipes by the DVGW.

Article No.	PU	Delivery form
27400051	100 pcs.	150 g tube



PTFE thread sealing strips

DVGW-certified

According to DIN EN 751-3, for fine and coarse thread

Fine thread FRp (DN ≤ 10)

Coarse thread GRp (10 ≤ DN ≤ 50)



Article No.	PU	Delivery form
27510112	250 pcs.	Class FRp, 0.1 mm thick, 60 g/m ²
27510113	250 pcs.	Class GRp, 0.1 mm thick, 100 g/m ²

Locher paste 2000

Non-hardening sealing paste

For metallic thread connections for house installation, gas- and drinking water supplies as well as water-heating systems, DIN DVGW mark of conformity NV-5142BL0134

Use with hemp to +130 °C

Article No.	PU	Delivery form
27400055	20 pcs.	250 g tube
27400056	18 pcs.	400 g can
27400057	18 pcs.	850 g can



Stoppers

Article No.	PU	Delivery form
27700001	100 pcs.	Plastic, 1/2" blue
27700002	100 pcs.	Plastic, 1/2" red
27700010	100 pcs.	Plastic with brass thread, 1/2", blue
27700011	100 pcs.	Plastic with brass thread, 1/2", red
27700012	100 pcs.	Plastic with brass thread, 3/4", blue
27700013	100 pcs.	Plastic with brass thread, 3/4", red



Loctite® 55

Thread-sealing yarn with DVGW mark of conformity,

Non-hardening thread sealing agent for sealing of threads from 1/4" to 6"

Article No.	PU	Delivery form
27510114	48 pcs.	Jar of 150 m



NEO-FERMIT UNIVERSAL

For metallic thread connections with hemp,
according to DIN EN 751-2 approved for house installation of gas and drinking water pipes by the DVGW.

Article No.	PU	Delivery form
27400040	100 pcs.	90 g tube
27400050	15 pcs.	150 g tube
27400058	15 pcs.	325 g tube
27400059	24 pcs.	450 g can
27400065	18 pcs.	800 g can



PLASTIC-FERMIT white

Duroplastic, kneadable sealing compound, plastic-based
Sealing cement for installation of sanitary facilities

Article No.	PU	Delivery form
27450055	24 pcs.	0.250 kg jar
27450060	30 pcs.	0.500 kg jar
27450070	18 pcs.	1.000 kg jar



Fireproof boiler sealant

“FROSCHMARKE”

Is guaranteed to be fireproof against open fires and temperatures above 1,000 °C, e.g. for sealing against fumes, for use with boiler systems, stoves and ovens.

Article No.	PU	Delivery form
27460055	24 pcs.	0.250 kg jar
27460060	30 pcs.	0.500 kg jar
27460070	18 pcs.	1.000 kg jar



FERMITEX

Chemical pipe cleaning agent

Simply, rapidly and reliably clears blockages, eliminates bad smells and hazardous bacteria in drains, also thaws frozen pipes.

Article No.	PU	Delivery form
27450470	12 pcs.	1.000 kg jar



FERMIT Special

Thread sealing paste for use with hemp,

for use with heating-, water- and compressed air systems.

Must not be used for gas- and drinking water facilities for house installation.

Article No.	PU	Delivery form
27410060	24 pcs.	0.650 kg jar



FERMITAC adhesive

Universal contact adhesive for rigid PVC,
various plastics, wood and felt

Article No.	PU	Delivery form
27440058	50 pcs.	125 ml jar with brush
27440059	45 pcs.	250 ml jar with brush



FERMITAC rigid PVC cleaning agent

Cleaning agent for pipes, sleeves and fittings of rigid PVC

Article No.	PU	Delivery form
27440251	18 pcs.	125 ml can

FERMITOL liquid

Liquid synthetic resin sealing agent

Resistant against oil

Article No.	PU	Delivery form
27430050	32 pcs.	0.125 kg jar
27430055	18 pcs.	0.250 kg jar
27430060	10 pcs.	0.500 kg jar
27430070	1 pce.	1.000 kg jar



Zickzag mounting strips

Flexible mounting strip for every piece of sanitary ware

In a dispenser box, self-adhesive on one side, format 36 x 3 mm

Article No.	PU	Delivery form
27900051	25 pcs.	9 m / role



Tub sound absorption strip

Bath tub rebate profile with tear seam

PE strips, self-adhesive on one side, white, 50 x 4 format

Article No.	PU	Delivery form
27900053	25 pcs.	Length 3.30 m



Sound insulation floor tile for stand-alone WC RG 100

Closed-cell PE foam

Without accessories

Article No.	PU	Delivery form
27900050	25 pcs.	Boxes of 25 pieces



Noise-insulation-set for wall-WC and bidet

With test certificate

Thickness 4 mm

Article No.	PU	Delivery form
27900025	15 pcs.	Boxes of 15 pieces



Noise-insulation-set for urinals

550 RG 70/5 to 630 mm

Closed-cell PE foam, with test certificate, including mounting material

Article No.	PU	Delivery form
27900040	25 pcs.	Boxes of 25 pieces



Noise-insulation-set for wash basins

550 RG 70/5

Closed-cell PE foam, with test certificate, including mounting material

Article No.	PU	Delivery form
27900030	25 pcs.	Boxes of 25 pieces



Noise-insulation-set for wash stand

750 RG 70/5

Closed-cell PE foam, with test certificate, including mounting material

Article No.	PU	Delivery form
27900031	25 pcs.	Boxes of 25 pieces

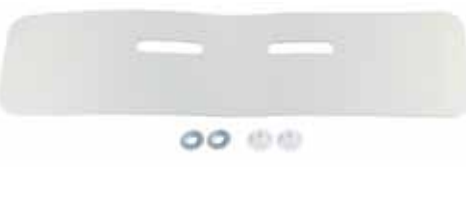


Noise-insulation-set for double wash stand

840 RG 70/5

Closed-cell PE foam, with test certificate, including mounting material

Article No.	PU	Delivery form
27900032	25 pcs.	Boxes of 25 pieces



FELDER lubricant for connecting sleeves

Lubricant for all connectable pipes

- Excellent lubricant properties
- Does not leak
- Acid-free and solvent-free
- Not skin-irritating
- Biodegradable
- Lightly perfumed

Article No.	PU	Delivery form
27180155	30 pcs.	250 g dosage bottle
27180160	20 pcs.	500 g dosage bottle



FELDER lubricant

For mounting of plastic joints with connecting sleeve and rubber band

Article No.	PU	Delivery form
27180350	50 pcs.	150 g tube
27180355	50 pcs.	250 g tube
27180360	24 pcs.	500 g tube
27180371	1 pce.	1.000 kg jar
27180373	1 pce.	5.000 kg bucket



If desired, we can also deliver the lubricant with DVGW approval. This is only necessary however if it is used for drinking water pipe lines.

Leak detection spray

With DVGW mark of conformity

Leak tightness testing agent

Article No.	PU	Delivery form
27150000	12 pcs.	400 ml spray can
27150075	1 pce.	5 l canister
27150100	1 pce.	10 l canister
27150105	1 pce.	0.5 l pump dispenser, empty
27150106	1 pce.	0.5 l pump dispenser with contents



Leak detection spray

Frost-proof to -15 °C

Article No.	PU	Delivery form
27151000	12 pcs.	400 ml spray can

Burner cleaning spray

Cleaning and degreasing spray

For all strongly soiled burner components

Article No.	PU	Delivery form
27680061	12 pcs.	500 ml spray can



Universal boiler foam cleaner

Special cleaning agent for gas- and oil-operated boiler systems
(E.g. maintenance of gas heating and hot water systems)

Article No.	PU	Delivery form
27660061	12 pcs.	500 ml spray can



Cutting oil spray

With DVGW mark of conformity
Food safe, active substance combination contains no aggressive additives, anticorrosive

Article No.	PU	Delivery form
27230000	12 pcs.	400 ml spray can



Rust remover spray, acid-free

Protects against corrosion
Moisture-displacing

Article No.	PU	Delivery form
27220000	12 pcs.	400 ml spray can



Skeleton gun

Open hexagonal skeleton gun

Industrial and tradesman quality for 310 ml cartridges

Article No.	PU	Delivery form
27630201	24 pcs.	Loose in box



FELDER SANITARY SILICONE Universal

Acetic-crosslinking, DIN 18545 E

Permanently elastic caulking compound, anti-fungal and anti-bacterial, standard colours: transparent, white, manhattan further sanitary colours on request

Article No.	PU	Delivery form
27600060	20 pcs.	310 ml cartridge



High-temperature silicone

Permanent temperature resistance to 183 °C

For a short time to 300 °C, colour: red

Article No.	PU	Delivery form
27610060	20 pcs.	310 ml cartridge



Silicone "Neutral"

Neutral cross-linking

And odourless, DIN EN 18545,
for window and glazing construction
standard colours: transparent and white

Article No.	PU	Delivery form
27620060	20 pcs.	310 ml cartridge



ACRYLIC

Caulking compound

Acrylic dispersion-based, for connection joints indoors,
standard colours: transparent, grey, white

Article No.	PU	Delivery form
27630160	20 pcs.	310 ml cartridge



Glättfix

Plastic hand scraper

For smoothing all types of sealing compounds

Article No.	PU	Delivery form
27630202	1 pce.	Loose in box



Separating spray

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

400 ml spray cans

Article No.	PU	Description
27170000	12 pcs.	Silicone spray Separating spray containing silicon
27172000	12 pcs.	Separating spray, silicon-free Silicon-free separating agent



Metal spray paints

Builds a fast-drying and permanently adherent anti-corrosion coating on all metallic surfaces, wood, ceramic, glass, etc.

400 ml spray cans

Article No.	PU	Description
27210000	12 pcs.	Zinc spray Protective coating of micro-fine zinc dust
27211000	12 pcs.	Aluminium spray Ideal for repair work (e.g. soldering joints and welds)
27215000	12 pcs.	Zinc/aluminium mix spray Protective coating of micro-fine zinc dust
27212000	12 pcs.	Stainless steel spray Heat-resistant for a short period up to 300 °C
27213000	12 pcs.	Copper spray Ideal for repair work (e.g. soldering joints and welds)
27214000	12 pcs.	Brass spray Ideal for repair work (e.g. soldering joints and welds)



Hard solder alloys - weight in grams per metre

Alloy	Density	0.5 mm Ø	1.0 mm Ø	1.5 mm Ø	2.0 mm Ø	3.0 mm Ø
L-Ag 20	8.7	1.71 g	6.83 g	15.37 g	27.32 g	61.47 g
L-Ag 25	8.8	1.73 g	6.91 g	15.54 g	27.63 g	62.17 g
L-Ag30Sn	8.8	1.73 g	6.91 g	15.54 g	27.63 g	62.17 g
L-Ag34Sn	9.0	1.77 g	7.07 g	15.90 g	28.26 g	63.59 g
L-Ag40Sn	9.1	1.79 g	7.14 g	16.07 g	28.57 g	64.29 g
L-Ag44	9.1	1.79 g	7.14 g	16.07 g	28.57 g	64.29 g
L-Ag45Sn	9.2	1.81 g	7.22 g	16.25 g	28.89 g	65.00 g
L-Ag55Sn	9.4	1.84 g	7.38 g	16.60 g	29.72 g	66.41 g

Soft solder alloys - weight in grams per metre

Alloy	Density	0.5 mm Ø	1.0 mm Ø	1.5 mm Ø	2.0 mm Ø	3.0 mm Ø
Pb60Sn40	9.3	1.83 g	7.30 g	16.43 g	29.20 g	65.70 g
Pb50Sn50	8.9	1.75 g	6.99 g	15.72 g	27.95 g	62.88 g
Sn60Pb40	8.5	1.67 g	6.67 g	15.01 g	26.69 g	60.05 g
Sn99Cu1/Sn100Ni+	7.3	1.43 g	5.73 g	12.89 g	22.92 g	51.57 g
Sn97Cu3	7.3	1.43 g	5.73 g	12.89 g	22.92 g	51.57 g
Sn97Ag3	7.4	1.45 g	5.81 g	13.07 g	23.34 g	52.28 g
Sn96.5Ag3Cu0.5	7.5	1.47 g	5.89 g	13.25 g	23.55 g	52.99 g
Sn95.5Ag3.8Cu0.7	7.5	1.47 g	5.89 g	13.25 g	23.55 g	52.99 g
Sn99.9	7.3	1.43 g	5.73 g	12.89 g	22.92 g	51.57 g
Pb99,9	11.36	2.23 g	8.92 g	20.06 g	35.67 g	80.26 g

Useful formulas

Application	Formula
Round wire - g/m	$\frac{\varnothing^2 * \pi * \text{Density}}{4}$
Square rods - g/m	$\varnothing^2 * \text{Density}$
Strip - g/m	Width * Thickness * Density
Soldering rings - g/1000 pcs	$\left(\frac{\text{wire}\varnothing}{2}\right)^2 * \pi * (\text{wire}\varnothing + \text{ring inside}\varnothing) * \pi * \text{density}$

(Note: all sizes in mm • density in g/cm³)

FELDER

— seit 1979 —

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