

Cu-base solid wire

Classification

AWS A5.7 : ERCuAl-A1
 EN 14640 : S Cu 6100 (CuAl8)

General description

Solid wire for welding copper-aluminium alloys, as aluminium bronze
 High resistance to corrosion and wear

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
 I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Al	Mn
bal.	8	0.3

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB
Typical values	I1	AW	185	430	30	95

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr
Copper-aluminium wrought alloys		DIN 17665	CuAl5As 2.0918
		CuAl8	2.0920
Copper-aluminium cast alloys		DIN 1714	G-CuAl8Mn 2.0962

Packaging and available sizes

Unit type	Diameter (mm)				
	0.8	1.0	1.2	1.6	2.0
12 kg spool B300	X	X	X	X	X
Other sizes and packaging on request					

LNM CuAl8: rev. EN 21

Liability: All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance **Fumes:** Consult information on Welding Safety Sheet, available upon request

Cu-base solid rod

Classification

AWS A5.7 : ERCuAl-A1
 EN 14640 : S Cu 6100 (CuAl8)

General description

Solid rod for welding copper-aluminium alloys, as aluminiumbronze
 High resistance to corrosion and wear

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
 I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%), Typical, rod

Cu	Al	Mn
bal.	8	0.3

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB
Typical values	I1	AW	185	430	30	95

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr
Copper-aluminium wrought alloys	DIN 17665	CuAl5As	2.0918
		CuAl8	2.0920
Copper-aluminium cast alloys	DIN 1714	G-CuAl8Mn	2.0962

Packaging and available sizes

Unit type	Diameter (mm)
	2.0
2 kg tube	X
Other sizes and packaging on request	

LNT CuAl8: rev. EN 21

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Cu-base solid wire

Classification

EN 14640 : S Cu 6327

General description

Solid wire for welding copper-aluminium alloys

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Al	Mn	Ni	Fe
bal.	8.7	1.5	2.1	2.0

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C	Hardness HB
Typical values	I1	AW	270	530	30	70	140

Materials to be welded

Cu-alloy grades

Copper-aluminium alloys with 7-9% Al

Packaging and available sizes

Unit type	Diameter (mm)	
	1.2	1.6
12 kg spool B300	X	X
Other sizes and packaging on request		

LNМ CuAl8Ni2: rev. EN 01

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Cu-base solid wire

Classification

AWS A5.7 : ERCuNiAl
EN 14640 : S Cu 6328 (CuAl9Ni5)

General description

Solid wire for welding copper-aluminium alloys, as aluminium bronzes
High resistance to corrosion and wear

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Al	Mn	Ni	Fe
bal.	9	2.5	5.0	4.0

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB
Typical values	I1	AW	380	500	20	150

Materials to be welded

Cu-alloy grades

Copper-aluminium alloys with 7-9% Al

Packaging and available sizes

Unit type	Diameter (mm)	
	1.2	1.6
12 kg spool B300	X	X
Other sizes and packaging on request		

LNM CuAl8Ni6: rev. EN 02

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Cu-base solid wire

Classification

AWS A5.7 : ERСuNi
EN 14640 : S Cu 7158 (CuNi30)

General description

Solid wire for welding copper-nickel alloys containing 10-30%Ni

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Mn	Ni
bal.	0.8	31

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB
Typical values	I1	AW	220	380	30	70

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr	UNS
Copper-nickel wrought alloys				
	DIN 17664	CuNi10Fe1Mn	2.0872	C 70600
		CuNi30Mn1Fe	2.0882	C 71500
		CuNi30Fe2Mn2	2.0883	C 71600
Copper-nickel cast alloys				
	DIN 17658	G-CuNi10	2.0815	
		G-CuNi30	2.0835	

Packaging and available sizes

Unit type	Diameter (mm)		
	0.8	1.0	1.2
15 kg spool B300	X	X	X
Other sizes and packaging on request			

LNМ CuNi30: rev. EN 22

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Cu-base solid rod

Classification

AWS A5.7 : ERCuNi
EN 14640 : S Cu 7158 (CuNi30)

General description

Solid rod for welding copper-nickel alloys containing 10-30%Ni

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Approvals

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Chemical composition (w%), Typical, rod

Cu	Mn	Ni	Si	Ti	Fe
bal.	0.75	30	0.05	0.35	0.5

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C	Hardness HB
Typical values	I1	AW	250	400	30	100	70

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr	UNS
Copper-nickel wrought alloys				
	DIN 17664	CuNi10Fe1Mn	2.0872	C 70600
		CuNi30Mn1Fe	2.0882	C 71500
		CuNi30Fe2Mn2	2.0883	C 71600
Copper-nickel cast alloys				
	DIN 17658	G-CuNi10	2.0815	
		G-CuNi30	2.0835	

Packaging and available sizes

Unit type	Diameter (mm)			
	1.6	2.0	2.4	3.2
2 kg tube	X	X	X	X
Other sizes and packaging on request				

LNT CuNi30: rev. EN 21

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Cu-base solid wire

Classification

AWS A5.7 : ERCu
EN 14640 : S Cu 1898 (CuSn1)

General description

Solid wire for GMA-welding of copper

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Mn	Si	Sn	Ni
bal.	0.2	0.3	0.8	0.1

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB
Typical values	I1	AW	100	220	60	35

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr
Copper	DIN 1787	OF-Cu	2.0040
		SE-Cu	2.0070
		SW-Cu	2.0076
		SF-Cu	2.0090
Wrought low alloyed copper alloys	DIN 17666	CuFe2P	2.1310
		CuSP	2.1498
		CuTeP	2.1546

Packaging and available sizes

Unit type	Diameter (mm)	
	1.0	1.2
12 kg spool B300	X	X
Other sizes and packaging on request		

LNM CuSn: rev. EN 21

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Cu-base solid wire

Classification

AWS A5.7 : ERCuSn-A
EN 14640 : S Cu 5180 (CuSn6P)

General description

Solid wire for welding of copper-tin alloys

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Sn	P
bal.	6	0.2

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	AW	150	260	20	80

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr
Copper-tin wrought alloys	DIN 17662	CuSn4	2.1016
		CuSn6	2.1020
		CuSn8	2.1030
Copper-tin cast alloys	DIN 1705	G-CuSn2ZnPb	2.1098
		G-CuSn5ZnPb	2.1096
		G-CuSn6ZnNi	2.1093

Packaging and available sizes

Unit type	Diameter (mm)		
	1.0	1.2	1.6
15 kg spool B300	X	X	X
Other sizes and packaging on request			

LNM CuSn6: rev. EN 01

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Cu-base solid rod

Classification

AWS A5.7 : ERcUSn-A
EN 14640 : S Cu 5180 (CuSn6P)

General description

Solid rod for welding of copper-tin alloys

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%), Typical, rod

Cu	Sn	P
bal.	6	0.2

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C	Hardness HB
Typical values	I3	AW	150	260	20	80	75

Materials to be welded

Cu-alloy grades	Standard	Type	Mat. Nr
Copper-tin wrought alloys			
	DIN 17662	CuSn4	2.1016
		CuSn6	2.1020
		CuSn8	2.1030
Copper-tin cast alloys			
	DIN 1705	G-CuSn2ZnPb	2.1098
		G-CuSn5ZnPb	2.1096
		G-CuSn6ZnNi	2.1093

Packaging and available sizes

Unit type	Diameter (mm)			
	2.0	2.4	3.2	4.0
2 kg tube	X	X	X	X
Other sizes and packaging on request				

LNT CuSn6: rev. EN 22

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Cu-base solid wire

Classification

EN 14640 : S Cu 5410 (CuSn12P)

General description

Solid wire for GMA-welding of copper-tin and copper-zinc alloy

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Sn	P
bal.	12	0.2

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)
Typical values	I1	AW	100	250	30

Materials to be welded

Copper-tin alloys, e.g. bronze with 10-12% tin
Copper-zinc alloys e.g. brass

Packaging and available sizes

Unit type	Diameter (mm)
	0.8
12 kg spool B300	X
Other sizes and packaging on request	

LNM CuSn12: rev. EN 21

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Cu-base solid wire

Classification

AWS A5.7 : ERCuSi-A
EN 14640 : S Cu 6560 (CuSi3Mn1)

General description

Solid wire for GMA-welding of low-alloyed copper grades
High temperature and corrosion resistant

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%) typical wire

Cu	Mn	Si	Sn	Zn
bal.	1.0	3.0	0.1	0.1

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C	Hardness HB
Typical values	I1	AW	120	350	40	60	95

Materials to be welded

Copper, low alloyed copper and copper-zinc alloys

Packaging and available sizes

Unit type	Diameter (mm)	
	0.8	1.0
5 kg spool BS300	X	X
12 kg spool B300		X
Other sizes and packaging on request		

LNM CuSi3: rev. EN 01

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Cu-base solid rod

Classification

AWS A5.7 : ERCuSi-A
EN 14640 : S Cu 6560 (CuSi3Mn1)

General description

Solid rod for GTA-welding of low-alloyed copper grades
High temperature and corrosion resistant

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)
I3 Inert gas Ar+ 0.5-95% He

Chemical composition (w%), Typical, rod

Cu	Mn	Si	Sn	Zn
bal.	1.0	3.0	0.1	0.1

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) +20°C	Hardness HB
Typical values	I1	AW	120	350	40	60	95

Materials to be welded

Copper, low alloyed copper and copper-zinc alloys

Packaging and available sizes

Unit type	Diameter (mm)	
	2.0	2.4
2 kg tube	X	X
Other sizes and packaging on request		

LNT CuSi3: rev. EN 21

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