TIG RODS FOR MILD STEEL

Product name	Chemical composition (typical values) in %			AWS		EN/ISO	
	C	Mn	Si				
LNT 25	0.08	1.1	0.6	A5.18/A5.18M	ER70S-3	EN/ISO 636-A	W 42 5 W2Si
LNT 26	0.10	1.5	0.9	A5.18/A5.18M	ER70S-6	EN/ISO 636-A	W 42 5 W3Si1

TIG RODS FOR LOW ALLOY STEEL

Product name	Chemical composition (typical values) in %										AWS		EN/ISO	
	C	Mn	Si	Ni	Cu	Cr	Mo	V	Nb	N				
LNT 28	0.10	1.4	0.75	0.8	0.3	-	-	-	-	-	A5.28	ER80S-G		
LNT Ni1	0.10	1.2	0.6	0.9	-	-	-	-	-	-	A5.28	ER80S-Ni1	EN/ISO 636-A	W 42 6 W3Ni1
LNT NiMo1	0.08	1.7	0.7	0.4	-	-	0.35	-	-	-	A5.28	ER100S-G	EN/ISO16834-A	W Mn3Ni1Mo
LNT Ni2.5	0.10	1.1	0.55	2.4	-	-	-	-	-	-	A5.28	ER80S-Ni2	EN/ISO 636-A	W 2Ni2
LNT 12	0.10	1.2	0.6	-	-	-	0.5	-	-	-	A5.28	ER70S-A1	ISO 21952-A	W MoSi
LNT 19	0.10	1.0	0.6	-	-	1.2	0.5	-	-	-	A5.28	ER80S-B2*	ISO 21952-A	W CrMo1Si
LNT 20	0.08	1.0	0.6	-	-	2.5	1.0	-	-	-	A5.28	ER90S-B3*	ISO 21952-A	W CrMo2Si
LNT 502	0.09	0.6	0.3	-	-	5.7	0.6	-	-	-	A5.28	ER80S-B6	ISO 21952-A	W CrMo5Si
LNT 9Cr(P91)	0.11	0.8	0.25	0.5	0.06	8.9	1.0	0.2	0.06	-	A5.28	ER90S-B9	ISO 21952-A	W CrMo91

TIG RODS FOR STAINLESS STEEL

Product name	Chemical composition (typical values) in %											AWS		EN/ISO	
	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu	P	S	W			
LNT 304LSi	0.02	2.0	0.8	20.0	10.0	0.1	-	-	-	-	-	-	A5.9	ER308LSi	ISO 14343-A	W 19 9 L Si
LNT 304L	0.01	1.7	0.4	20.0	10.0	0.1	-	-	-	-	-	-	A5.9	ER308L	ISO 14343-A	W 19 9 L
LNT 347Si	0.05	1.4	0.7	19.5	9.5	0.01	0.6	-	-	-	-	-	A5.9	ER347Si	ISO 14343-A	W 19 9 NbSi
LNT 316L	0.01	1.5	0.5	18.5	12	2.7	-	-	-	-	-	-	A5.9	ER316L	ISO 14343-A	W 19 12 3 L
LNT 316LSi	0.03	1.9	0.8	18.5	12.0	2.7	-	-	-	-	-	-	A5.9	ER316LSi	ISO 14343-A	W 19 12 3 L Si
LNT 318Si	0.05	1.4	0.7	18.7	11.7	2.5	0.7	-	-	-	-	-	A5.9	ER318*	ISO 14343-A	W 19 12 3 NbSi
LNT 4439Mn	0.02	7.0	0.4	18.0	16.0	4.5	-	0.15	-	-	-	-			ISO 14343-A	W 18 16 5 N L*
LNT 4500	0.01	1.7	0.4	20.0	25.0	4.5	-	-	1.5	-	-	-	A5.9	ER385	ISO 14343-A	W 20 25 5 Cu L
LNT 4462	0.01	1.6	0.5	22.5	8.5	3.0	-	0.15	-	-	-	-	A5.9	ER2209	ISO 14343-A	W 22 9 3 N L
LNT Zeron® 100X	0.02	0.6	0.23	25.0	9.3	3.6	-	0.22	0.6	-	-	0.6	A5.9	ER2594	ISO 14343-A	W 25 9 4 N L
LNT 309LSi	0.02	2.0	0.8	23.5	13.0	0.1	-	-	-	-	-	-	A5.9	ER309LSi	ISO 14343-A	W 23 12 L Si
LNT 309L	0.01	1.65	0.5	24.0	13.0	0.1	-	-	-	-	-	-	A5.9	ER309L	ISO 14343-A	W 23 12 L
LNT 309LHF	0.02	2.0	0.35	24	13	0.1	-	-	-	-	-	-	A5.9	ER309L	ISO 14343-A	W 23 12 L
LNT 307	0.07	7.1	0.8	18.6	8.0	-	-	-	-	-	-	-	A5.9	ER307*	ISO 14343-A	W 18 8 Mn
LNT 304H	0.07	1.9	0.4	20.0	9.2	0.1	-	-	-	-	-	-	A5.9	ER308H	ISO 14343-A	W 19 9 H
LNT 310	0.1	1.7	0.5	26.0	21	0.1	-	-	-	-	-	-	A5.9	ER310	ISO 14343-A	W 25 20

TIG RODS FOR NI BASE ALLOYS

Product name	Chemical composition (typical values) in %												AWS		EN/ISO	
	C	Mn	Si	Ni	Cr	Mo	Cu	Nb	Fe	Al	W	Ti				
LNT NiCro 60/20	0.03	0.1	0.1	bal.	22.0	9.0	-	3.5	0.4	-	-	-	A5.14/A5.14M	ERNiCrMo-3	ISO 18274	S Ni 6625 (NiCr22Mo9Nb)
LNT NiCro 70/19	0.03	3.0	0.2	bal.	20.0	-	0.1	2.5	1.0	-	-	-	A5.14/A5.14M	ERNiCr-3	ISO 18274	S Ni 6082 (NiCr20Mn3Nb)
LNT NiCroMo 59/23	0.015	0.5	0.06	59	23	16	-	-	1.5	0.4	-	-	A5.14/A5.14M	ERNiCrMo-13	ISO 18274	S Ni 6059 (NiCr23Mo16)
LNT NiCu 70/30	0.06	3.5	0.5	65	-	-	30	-	1.1	-	-	2.0	A5.14/A5.14M	ERNiCu-7	ISO 18274	S Ni 4060 (NiCu30MnTi)
LNT NiTi	0.03	0.5	0.4	bal.	-	-	-	-	0.06	-	-	2.8	A5.14/A5.14M	ERNi1	ISO 18274	S Ni 2061 (NiTi3)

TIG RODS FOR CU BASE ALLOYS

Product name	Chemical composition (typical values) in %										AWS		EN/ISO	
	C	Al	Mn	Ni	Si	Ti	Fe	Sn	P	Zn				
LNT CuNi30	bal.	-	0.75	30	0.05	0.35	0.5	-	-	-	A5.7	ERCuNi	EN ISO 24373	S Cu 7158 (CuNi30)
LNT CuSn6	bal.	-	-	-	-	-	-	6	0.2	-	A5.7	ERCuSn-A	EN ISO 24373	S Cu 5180 (CuSn6P)
LNT CuSi3	bal.	-	1.0	-	3.0	-	-	0.1	-	0.1	A5.7	ERCuSi-A	EN ISO 24373	S Cu 6560 (CuSi3Mn1)

TIG RODS FOR ALUMINIUM

Product name	Chemical composition (typical values) in %												AWS 5.10	EN 573.3	ISO 18273
	Al	Mn	Si	Ti	Fe	Zn	Mg	Cr	Cu	Si+Fe	Zr	V			
SuperGlaze® TIG 1070	min.99.7	max. 0.03	max. 0.2	max. 0.03	max. 0.25	max. 0.04	max. 0.03	-	max. 0.04	-	-	max. 0.05			S Al 1070 (Al99.7)
SuperGlaze® TIG 1100	min.99.0	max. 0.05	-	-	-	max. 0.10	-	-	0.05-0.20	max. 0.95	-	-	R1100	EN AW-Al99.0Cu	S Al 1100 (Al99.0Cu)
SuperGlaze® TIG 4043	bal.	max. 0.05	4.5-6.0	-	max. 0.8	max. 0.1	max. 0.05	-	max. 0.3	-	-	-	R4043	EN AW-Alsi5	S Al 4043 (Alsi5)
SuperGlaze® TIG 4047	bal.	max. 0.15	11-13	-	max. 0.8	max. 0.2	max. 0.10	-	max. 0.3	-	-	-	R4047	EN AW-Alsi12	S Al 4047 (Alsi12)
SuperGlaze® TIG 5087	bal.	0.7-1.1	max. 0.25	max. 0.15	max. 0.4	max. 0.25	4.5-5.2	0.05-0.25	max. 0.05	-	0.10-0.20	-			S Al 5087 (AlMg4,5MnZr)
SuperGlaze® TIG 5183	bal.	0.5-1.0	max. 0.4	max. 0.15	max. 0.4	max. 0.25	4.3-5.2	0.05-0.25	max. 0.1	-	-	-	R5183	EN AW-AlMg4.5Mn	S Al 5183 (AlMg4.5Mn0.7(A))
SuperGlaze® TIG 5356	bal.	0.05-0.2	max. 0.25	0.06-0.2	max. 0.4	max. 0.1	4.5-5.5	0.05-0.20	max. 0.1	-	-	-	R5356	EN AW-AlMg5	S Al 5356 (AlMg5Cr(A))
SuperGlaze® TIG 5556	bal.	0.5-1.0	max. 0.25	0.05-0.2	max. 0.4	max. 0.25	4.7-5.5	0.05-0.20	max. 0.1	-	-	-	R5556		S Al 5556 (AlMg5Mn1Ti)
SuperGlaze® TIG 5554	bal.	0.5-1.0	max. 0.25	max. 0.20	max. 0.4	max. 0.25	4.7-5.5	0.05-0.20	max. 0.1	-	-	-	R5554		S Al 5554
SuperGlaze® TIG 5754	bal.	max. 0.5	max. 0.4	max. 0.15	max. 0.4	max. 0.2	2.6-3.6	max. 0.3	max. 0.1	-	-	-		EN AW AlMg3	S Al 5754 (AlMg3)

AUTOGENOUS WIRES

Product name	Chemical composition (typical values) in %									AWS		DIN/ISO	
	C	Mn	Si	Cr	P	S	Ni	Mo	Cu				
LNG I	0.07	0.4	0.07	-	0.01	0.01	-	-	-	A5.2	R45*	EN 12536	O I
LNG II	0.1	1.1	0.15	-	0.01	0.01	-	-	-	A5.2	R60*	EN 12536	O II
LNG IV	0.09	1.0	0.19	-	0.010	0.010	-	0.5	-	A5.2	R65*	EN 12536	O IV

TIG RODS

LNT 25

CLASSIFICATION

AWS A5.18	ER70S-3	**A-Nr**	1	**Mat-Nr**	1.5112
EN ISO 636-A	W 42 5 W2Si	**F-Nr**	6		
		9606 FM	1		

GENERAL DESCRIPTION

Solid rod for welding general construction in mild steel
High impact values

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV	CE
+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si
0.08	1.1	0.6

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	Impact ISO-V(J) -50°C
Typical values	I1	AW	450	560	26	170	100

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
General structural steels	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH 36.
Cast steels	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steels	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steels	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2	Note : Cut length = 1000 mm
5 kg PE-Tube	X	X	X	X	

LNT 25: rev. C-EN25-01/02/16

LNT 26

CLASSIFICATION

AWS A5.18	ER70S-6	**A-Nr**	1	**Mat-Nr**	1.5125
EN ISO 636-A	W 42 5 W3Si1	**F-Nr**	6		
		9606 FM	1		

GENERAL DESCRIPTION

Solid rod for welding general construction in mild steel
Smooth bead appearance

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV	CE
+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si
0.1	1.5	0.9

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	-30°C	-50°C
Typical values	I1	AW	460	580	26	170	170	120

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
General structural steels	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH 36.
Cast steels	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steels	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steels	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT 26: rev. C-EN25-01/02/16

LNT 28

CLASSIFICATION

AWS A5.28	ER80S-G	**A-Nr**	10
		F-Nr	6
		9606 FM	2

GENERAL DESCRIPTION

Solid rod for welding of weather resisting steels
Excellent mechanical properties

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

CE
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Cu
0.1	1.4	0.75	0.8	0.3

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C
Typical values	I1	AW	570	620	26	80

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Weather resisting steels	EN 10155	S 235 J 0 W S 235 J 2 W S 355 J 0 W S 355 J 2 W S 355 K 2 G 1 W

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**2.4**	**Note : Cut length = 1000 mm**
5 kg PE-Tube	X	

LNT Ni1

CLASSIFICATION

AWS A5.28	ER80S-Ni1	**A-Nr**	12
EN ISO 636-A	W 42 6 W3Ni1	**F-Nr**	6
		9606 FM	1

GENERAL DESCRIPTION

Solid rod for welding fine grained and low alloy nickel steels
High impact value at low temperature (-60°C)
Typical offshore applications

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

GL	TÜV	CE	DNV
+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni
0.1	1.2	0.6	0.9

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -60°C
Typical values	I1	AW	480	580	30	60

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
General structural steels	EN 10025	S275, S355
Ship plates	ASTM A131	Grade A, B, D, E, AH32 to EH36
Cast steels	EN 10213-2	GP240R
Pipe material	EN 10208-1	L290 GA, L360GA
EN 10208-2	L290, L360, L415	
API 5LX	X42, X46, X52, X60, X65	
EN 10216-1	P275T1	
EN 10217-1	P275 T2, P355 N	
Fine grained steels	EN 10025 part 3	S275, S355, S420, S460
EN 10025 part 4	S275, S355, S420, S460	
EN 10028	P355NL-1, P460NL-1	

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.0
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT Ni1: rev. C-EN28-01/02/16

LNT NiMo1

CLASSIFICATION

AWS A5.28	ER100S-G	**A-Nr**	2
ISO 16834-A	W Mn3Ni1Mo	**F-Nr**	-
		9606 FM	2

GENERAL DESCRIPTION

Alloy TIG rod suitable for welding high tensile strength steels
Excellent mechanical properties

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Mo	Ti
0.08	1.7	0.7	0.9	0.35	0.17

GTAW

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)
Typical values	I1	AW	760	800	18

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Pipe material	EN 10208-2	L480, L550
API 5LX	X65, X70, X80	
Fine grained steels	EN 10025 part 6	S460, S500, S550, S620

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4
5 kg PE-Tube	X	X

LNT NiMo1 : rev. C-EN03-01/02/16

LNT Ni2.5

CLASSIFICATION

AWS A5.28	ER80S-Ni2	**A-Nr**	10
EN ISO 636-A	W2 Ni2	**F-Nr**	6
		9606 FM	1

GENERAL DESCRIPTION

Solid rod for welding fine grained and low alloy nickel steels
High impact value at low temperature (-60°C as welded and -90°C after stress relieving 15h/580°C).
Typical offshore applications

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV	CE
+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni
0.1	1.1	0.55	2.4

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -62°C	Impact ISO-V(J) -90°C
Typical values	I1	AW	525	605	28	280	133

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
General structural steels	EN 10025	S355
Pipe material	EN 10208-2	L360, L415, L445
API 5 LX	X52, X56, X60, X65	
Fine grained steels	EN 10025 part 3	S355, S420, S460
EN 10025 part 4	S355, S420, S460	
Low temperature steels	EN 10028-4 (12 Ni 14 G 1, G 2)	11 MnNi 5-3, 13 MnNi 6-3, 15 NiMn 6
EN 10222-3	13 MnNi 6-3, 15 NiMn 6	

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.4	3.0
5 kg PE-Tube	X	X

Note : Cut length = 1000 mm

LNT Ni2.5: rev. C-EN26-01/02/16

LNT 12

CLASSIFICATION

AWS A5.28	ER70S-A1	**A-Nr**	2	**Mat-Nr**	1.5424
ISO 21952-A	W MoSi	**F-Nr**	6		
		9606 FM	1/3		

GENERAL DESCRIPTION

Solid rod for welding creep resistant 0.5%Mo steels and Fine grained steels for low temperature applications in the as welded condition with service temperatures in range -20°C to +500°C

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV	DNV	GL	DB
+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Mo
0.1	1.2	0.6	0.5

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -20°C
Typical values	I1	AW	635	670	22	170	110

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Elevated temperature steel	EN 10028-2	P295 G H, P355 G H, 16 Mo 2
EN 10222-2	17 Mo 3, 14 Mo 6	
Fine grained steels	EN 10025 part 3	S275, S355, S420
EN 10025 part 4	S275, S355, S420	

APPLICATION ADVICE

Preheating welding joint acc.EN 1011-1
Stress relieving 580-650°C if necessary

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.0
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT 12: rev. C-EN25-01/02/16

LNT 19

CLASSIFICATION

AWS A5.28	ER80S-B2*	**A-Nr**	3	**Mat-Nr**	1.7339
ISO 21952-A	W CrMo1Si	**F-Nr**	6		
* Nearest classification		**9606 FM**	3		

GENERAL DESCRIPTION

Solid rod for welding creep and hydrogen resistant Cr-Mo steels (1,25Cr - 0,5Mo)
Service temperature up to 550°C

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Mo
0.1	1.0	0.6	1.2	0.5

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	PWHT 700°C/1h	540	640	22	250

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Elevated temperature steel	EN 10028-2	13 CrMo4-5
EN 10083-1	25 CrMo 4	
EN 10222-2	14 CrMo 4-5	
Tool steel	DIN 17210	16 MnCr 5

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4	3.0
5 kg PE-Tube	X	X	X

Note : Cut length = 1000 mm

LNT 19: rev. C-EN26-01/02/16

LNT 20

CLASSIFICATION

AWS A5.28	ER90S-B3*	**A-Nr**	4	**Mat-Nr**	1.7384
ISO 21952-A	W CrMo2Si	**F-Nr**	6		
* Nearest classification		**9606 FM**	4		

GENERAL DESCRIPTION

Solid rod for welding creep and hydrogen resistant Cr-Mo steels (2,25Cr - 1Mo)
Service temperature up to 600°C

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Mo
0.08	1.0	0.6	2.5	1.0

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	PWHT 700°C/1h	560	640	22	140

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Creep and hydrogen resistant steels	EN 10028-2	10CrMo 9-10
EN 10222-2	12CrMo 9-10	

APPLICATION ADVICE

Preheating welding joint acc. EN 1011-1, 200-250°C
Post weld heat treatment at 690-740°C

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**2.0**	**2.4**
5 kg PE-Tube	X	X

Note : Cut length = 1000 mm

LNT 20: rev. C-EN26-01/02/16

LNT 502

CLASSIFICATION

AWS A5.28	ER80S-B6	**A-Nr**	4	**Mat-Nr**	1.7373
ISO 21952-A	W CrMo5Si*	**F-Nr**	6		
* Nearest classification		**9606 FM**	4		

GENERAL DESCRIPTION

Solid rod for welding of creep and hydrogen resistant 5%Cr, 0.5%Mo steels
Service temperature up to 550°C

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Mo
0.09	0.6	0.3	5.7	0.6

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	PWHT 750°C/1h	560	650	20	80

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Creep and hydrogen resistant steels	SEW 028	12CrMo 19-5 and corresponding steels
ASTM A182	F5	
ASTM A213	T5	
ASTM A335	P5	
ASTM A336	F5	
ASTM A369	FP5	
ASTM A387	Grade 5	

APPLICATION ADVICE

Recommended preheat and interpass temperature 200-300°C
Recommended post weld heat treatment at range 675-750°C (time depending on material thickness)

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**2.4**	*Note : Cut length = 1000 mm*
5 kg PE-Tube	X	

LNT 502: rev. C-EN26-01/02/16

LNT 9Cr(P91)

CLASSIFICATION

AWS A5.28	ER90S-B39	**A-Nr**	5
ISO 21952-A	W CrMo91	**F-Nr**	6
		9606 FM	4

GENERAL DESCRIPTION

Solid rod for welding of creep and hydrogen resistant 9% Cr, 1% Mo steels
Service temperature up to 650°C

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Mo	Ni	Nb	V	Cu
0.11	0.8	0.25	8.9	1.0	0.5	0.06	0.2	0.06

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C
Typical values	I1	SR 750°C/3h	500	700	18	70

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type	Standard	Type
Creep and hydrogen resistant steels	EN 10222-2	X10CrMo V9-1 steels		
	ASTM	A199 Grade T91	ASME	SA 182-F91
		A200 Grade T91		
		A213 Grade T91		SA 213-T91
		A335 Grade P91		SA 335-P91
		A336 Grade F91		SA 336-F91
				SA 369-FP91
				SA 387-Grade 91
				SA 387-Grade 91

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4
5 kg PE-Tube	X	X

Note : Cut length = 1000 mm

LNT 9Cr(P91) : rev. C-EN26-12/05/16

LNT 304LSi

CLASSIFICATION

AWS A5.9	ER308LSi	**A-Nr**	8	**Mat-Nr**	1.4316
ISO 14343-A	W 19 9 L Si	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod with extra low carbon for welding austenitic CrNi-steels
With increased silicon for improved wettability

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

DNV	TÜV	CE	DB
+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.02	2.0	0.8	20	10	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	467	622	37	147	67

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C < 0.03%)					
	X2CrNi19-11		1.4306	(TP)304 L	S30403
				CF-3	J92500
	X2CrNiN18-10		1.4311	(TP)304LN	S30453
				302, 304	S30400
Medium carbon (C > 0.03%)					
	X4CrNi18-10		1.4301	(TP)304	S30409
		G-X5CrNi19-10	1.4308	CF-8	J92600
Ti-,Nb stabilized					
	X6CrNiTi18-10		1.4541	(TP)321	S32100
				(TP)321H	S32109
	X6 CrNiNb18-10		1.4550	(TP)347	S34700
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.0	1.2	1.6	2.0	2.4	3.2	*Note : Cut length = 1000 mm*
5 kg PE-Tube	X	X	X	X	X	X	

LNT 304LSi: rev. C-EN23-01/02/16

LNT 304L

CLASSIFICATION

AWS A5.9	ER308L	**A-Nr**	8	**Mat-Nr**	1.4316
ISO 14343-A	W 19 9 L	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod with extra low carbon for welding austenitic CrNi-steels
High resistance to intergranular corrosion and oxidizing environments

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

CE
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.01	1.7	0.4	20	10	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	472	692	34	120	91

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C < 0.03%)					
	X2CrNi19-11		1.4306	(TP)304 L	S30403
				CF-3	J92500
	X2CrNiN18-10		1.4311	(TP)304LN	S30453
				302, 304	S30400
Medium carbon (C > 0.03%)					
	X4CrNi18-10		1.4301	(TP)304	S30409
		G-X5CrNi19-10	1.4308	CF-8	J92600
Ti-,Nb stabilized					
	X6CrNiTi18-10		1.4541	(TP)321	S32100
				(TP)321H	S32109
	X6CrNiNb18-10		1.4550	(TP)347	S34700
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.2	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X	X

Note : Cut length = 1000 mm

LNT 304L: rev. C-EN24-01/02/16

LNT 347Si

CLASSIFICATION

AWS A5.9	ER347Si	**A-Nr**	8	**Mat-Nr**	1.4551
ISO 14343-A	W 19 9 NbSi	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding Ti or Nb stabilized stainless CrNi-steels
High resistance to intergranular corrosion and oxidizing environments

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV	CE	DB
+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	Nb
0.05	1.4	0.7	19.5	9.5	0.01	0.6

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	400	650	35	80	45

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Ti-,Nb stabilized					
	X6CrNiTi18-10		1.4541	(TP)321	S32100
				(TP)321H	S32109
	X6CrNiNb18-10		1.4550	(TP)347	S34700
				(TP)347h	S34709
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710
Non stabilized					
				302	
	X4CrNi18-10		1.4301	(TP)304	S30400
	X2CrNi19-11		1.4306	(TP)304L	S30403
		G-X5CrNi19-10	1.4308	CF-8	J92600
			1.4312		
				(TP)304H	S30409

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT 347Si : rev. C-EN24-01/02/16

LNT 316LSi

CLASSIFICATION

AWS A5.9	ER316LSi	**A-Nr**	8	**Mat-Nr**	1.4430
ISO 14343-A	W 19 12 3 LSi	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod with extra low carbon for welding stainless CrNiMo-steels
See also LNT 316L, high silicon for improved wettability

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

DNV	TÜV	DB	CE	ABS
+	+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.03	1.9	0.8	18.5	12.0	2.7

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	484	624	32	100	82

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C < 0.03%)					
	X2CrNiMo1712-2		1.4404	(TP)316L	S31603
				CF-3M	J92800
	X2CrNiMo18-14-3		1.4435	(TP)316L	S31603
	X2CrNiMoN17-11-2		1.4406	(TP)316LN	S31653
	X2CrNiMoN17-13-3		1.4429		
Medium carbon (C > 0.03%)					
	X4CrNiMo17-12-2		1.4401	(TP)316	S31600
	X4CrNiMo17-13-3		1.4436		
		G-X5CrNiMo19-11	1.4408	CF 8M	J92900
Ti-,Nb stabilized					
	X6CrNiMoTi17-12-2		1.4571	316 Ti	S31635
	X6CrNiMoNb17-12-2		1.4580	316 Cb	S31640
	X6CrNiNb18-10		1.4550	(TP)347	S34700
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.0	1.2	1.6	2.0	2.4	3.2	Note : Cut length = 1000 mm
5 kg PE-Tube	X	X	X	X	X	X	

LNT 316LSi: rev. C-EN24-01/02/16

LNT 316L

CLASSIFICATION

AWS A5.9	ER316L	**A-Nr**	8	**Mat-Nr**	1.4430
ISO 14343-A	W 19 12 3 L	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod with extra low carbon for welding austenitic CrNiMo-steels
High resistance to intergranular corrosion and general corrosion conditions

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.01	1.5	0.5	18.5	12	2.7

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -120°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	400	620	35	100	80	40

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C < 0.03%)					
	X2CrNiMo17-12-2		1.4404	(TP)316L	S31603
				CF-3M	J92800
	X2CrNiMo18-14-3		1.4435	(TP)316L	S31603
	X2CrNiMoN17-11-2		1.4406	(TP)316LN	S31653
	X2CrNiMoN17-13-3		1.4429		
Medium carbon (C > 0.03%)					
	X4CrNiMo17-12-2		1.4401	(TP)316	S31600
	X4CrNiMo17-13-3		1.4436		
		G-X5CrNiMo19-11	1.4408	CF 8M	J92900
Ti-,Nb stabilized					
	X6CrNiMoTi17-12-2		1.4571	316 Ti	S31635
	X6CrNiMoNb17-12-2		1.4580	316 Cb	S31640
	X6CrNiNb18-10		1.4550	(TP)347	S34700
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

LNT 316L: rev. C-EN25-01/02/16

LNT 318Si

CLASSIFICATION

AWS A5.9	ER318*	**A-Nr**	8	**Mat-Nr**	1.4576
ISO 14343-A	W 19 12 3 NbSi	**F-Nr**	6		
* Nearest classification		**9606 FM**	5		

GENERAL DESCRIPTION

Solid rod for welding Ti or Nb stabilized stainless CrNiMo-steels
High resistance to intergranular corrosion and general corrosion conditions

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	Nb
0.05	1.4	0.7	18.7	11.7	2.5	0.7

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	420	680	35	70	45

GTAW

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C < 0.03%)					
	X2CrNiMo17-12-2		1.4404	(TP)316L	S31603
				CF-3M	J92800
	X2CrNiMo18-14-3		1.4435	(TP)316L	S31603
	X2CrNiMoN17-11-2		1.4406	(TP)316LN	S31653
	X2CrNiMoN17-13-3		1.4429		
Medium carbon (C > 0.03%)					
	X4CrNiMo17-12-2		1.4401	(TP)316	S31600
	X4CrNiMo17-13-3		1.4436		
		G-X5CrNiMo19-11	1.4408	CF 8M	J92900
Ti-,Nb stabilized					
	X6CrNiMoTi17-12-2		1.4571	316 Ti	S31635
	X6CrNiMoNb17-12-2		1.4580	316 Cb	S31640
	X6CrNiNb18-10		1.4550	(TP)347	S34700
		G-X5CrNiNb19-10	1.4552	CF-8C	J92710

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

LNT 318Si: rev. C-EN24-01/02/16

LNT 4439Mn

CLASSIFICATION

		A-Nr	9*	**Mat-Nr**	1.4453
ISO 14343-A	W 18 16 5 N L*	**F-Nr**	-		
* Nearest classification		**9606 FM**	5		

GENERAL DESCRIPTION

Solid rod for welding AISI 317L, 317LN or equivalent stainless steels
For welding 316L if increased molybdemum content is important
High resistance to pitting, intergranular and stress corrosion
Fully austenitic weld metal

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	N
0.02	7	0.4	18	16	4.5	0.15

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -196°C
Typical values	I1	AW	440	650	35	80

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI	UNS
Fully austenitic CrNiMo corrosion resistant steels					
	X2CrNiMoN17-11-2		1.4406	(TP)316LN	S31653
	X2CrNiMoN17-13-3		1.4429	(TP)316LN	S31653
	X2CrNiMo18-14-3		1.4435	(TP)316L	S31603
	X2CrNiMo18-15-4		1.4438	317L	S31725
	X2CrNiMoN17-13-5		1.4439	317LN	S31726
	G-X2CrNiMoN17-13-4	G-X2CrNiMo17-13-4	1.4446		
	G-X6CrNiMo17-13	G-X6CrNiMo17-13	1.4448		

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**2.0**	**2.4**
5 kg PE-Tube	X	X

LNT 4439Mn: rev. C-EN23-01/02/16

LNT 4500

CLASSIFICATION

AWS A5.9	ER385	**A-Nr**	9
ISO 14343-A	W 20 25 5 Cu L	**F-Nr**	6
		9606 FM	5

GENERAL DESCRIPTION

Solid rod for welding of fully austenitic steels of type 20%Cr / 25%Ni / 4.5%Mo / 1.5%Cu
Highly corrosion resistant in sulphuric and phosphoric acid

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	Cu
0.01	1.7	0.4	20	25	4.5	1.5

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -196°C
Typical values	I1	AW	380	560	35	80

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr
Fully austenitic NiCrMoCu and CrNiMoCu steels			
		G-X7NiCrMoCuNb25-20	1.4500
	X5NiCrMoCuTi20-18		1.4506
		G-X2NiCrMoCuN20-18	1.4531
		G-X2NiCrMoCuN25-20	1.4536
	X1NiCrMoCuN25-20-5		1.4539
		G-X7CrNiMoCuNb18-18	1.4585
	X5NiCrMoCuNb22-18		1.4586

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4
5 kg PE-Tube	X	X

LNT 4500: rev. C-EN24-01/02/16

LNT 4462

CLASSIFICATION

AWS A5.9	ER2209	**A-Nr**	8	**Mat-Nr**	1.4462
ISO 14343-A	W 22 9 3 N L	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding duplex stainless steels
High resistance to general corrosion, pitting and stress corrosion conditions

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV

+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	N
0.01	1.6	0.5	22.5	8.5	3.0	0.15

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -60°C
Typical values	I1	AW	675	829	27	200

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	UNS
Duplex stainless steels			
	X2CrNiMoN22-5-3	1.4462	S31803
		1.4417	S31500
	X2CrNiN23-4	1.4362	S32304
	X3CrNiMoN27-5-2	1.4460	S31200
	X2CrNiMoN21-5-1	1.4162	S32101

Dissimilar joints such as un- and low alloy steel to duplex stainless steel

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT 4462: rev. C-EN24-01/02/16

LNT Zeron® 100X

CLASSIFICATION

AWS A5.9	ER2594	**A-Nr**	8
ISO 14343-A	W 25 9 4 N L	**F-Nr**	6
		9606 FM	5

GENERAL DESCRIPTION

Solid rod for welding Zeron® 100 and other super duplex stainless steel grades
High resistance to pitting and crevice corrosion in seawater

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV

+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo	Cu	W	N
0.02	0.6	0.23	25	9.3	3.6	0.6	0.6	0.22

GTAW

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -50°C
Typical values	I1	AW	655	934	42	100

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	UNS		
Regular and super duplex stainless steels					
	X2CrNiMoN25-7-4		1.4410		
	X4CrNiMoN27-5-2		1.4460		
	X2CrNiMoN22-5-3		1.4462	2205	S31803
		GX6 CrNiMo 24-8-2	1.4463		
				CD-4MCu	S32550
				Zeron® 100	S32760

Super duplex stainless Steel grades: chemical composition approximately:
24-27% Cr, 6-9% Ni, 3-4% Mo, 0.10-0.25% N alloyed also with Cu and/or W

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2	*Note : Cut length = 1000 mm*
5 kg PE-Tube	X	X	X	X	

LNT Zeron® 100X: rev. C-EN25-01/02/16

LNT 309LHF

CLASSIFICATION

AWS A5.9	ER309L	**A-Nr**	8	**Mat-Nr**	1.4332
ISO 14343-A	W 23 12 L	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding stainless steel to carbon steel
Low susceptability to embrittlement
Minimum 18FN ferrite in weldmetal

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.02	2.0	0.35	24	13	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength(N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) +40°C
Typical values	I1	AW	488	608	33	167	171

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Corrosion resistant cladsteels				
	X2CrNiN18-10	1.4311	(TP)304LN	S30453
	X2CrNi19-11	1.4306	(TP)304L	S30403
			CF-3	J92500
	X4CrNi18-10	1.4301	(TP)304	S30400

Dissimilar metals (mild and low alloy steel to stainless steel)
Build-up welding on mild and low alloy steel

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0
5 kg PE-Tube	X	X

LNT 309LHF rev. C-EN25-01/02/16

LNT 309LSi

CLASSIFICATION

AWS A5.9	ER309LSi	**A-Nr**	8	**Mat-Nr**	1.4332
ISO 14343-A	W 23 12 LSi	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding stainless steel to carbon steel
With high silicon for improved wettability

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

TÜV	CE
+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.02	2.0	0.8	23.5	13	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -120°C
Typical values	I1	AW	400	600	35	65

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	ASTM/ACI	UNS
Corrosion resistant cladsteels				
	X2CrNiN18-10	1.4311	(TP)304LN	S30453
	X2CrNi19-11	1.4306	(TP)304L	S30403
			CF-3	J92500
	X4CrNi18-10	1.4301	(TP)304	S30400

Dissimilar metals (mild and low alloy steel to stainless steel)
Build-up welding on mild and low alloy steel

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT 309LSi: rev. C-EN24-01/02/16

LNT 309L

CLASSIFICATION

AWS A5.9	ER309L	**A-Nr**	8	**Mat-Nr**	1.4332
ISO 14343-A	W 23 12 L	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding stainless steel to carbon steel

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

APPROVALS

CE
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.01	1.65	0.5	24	13	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	390	600	35

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	ASTM/ACI	UNS
Corrosion resistant cladsteels				
	X2CrNiN18-10	1.4311	(TP)304LN	S30453
	X2CrNi19-11	1.4306	(TP)304L	S30403
		CF-3	J92500	
	X4CrNi18-10	1.4301	(TP)304	S30400

Dissimilar metals (mild and low alloy steel to stainless steel)
Build-up welding on mild and low alloy steel

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4
5 kg PE-Tube	X	X	X

LNT 309L: rev. C-EN04-01/02/16

LNT 304H

CLASSIFICATION

AWS A5.9	ER308H	**A-Nr**	8	**Mat-Nr**	1.4948
ISO 14343-A	W 19 9 H	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding austenitic CrNi-steels
Especially for high temperature applications (up to 730°C)
Low sensitivity to precipitation of intermetallic phases

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.07	1.9	0.4	20	9.2	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	AW	370	600	35	80

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI	UNS
Medium carbon (C > 0.03%)					302
	X4CrNi18-10		1.4301	(TP)304	S30400
				(TP)304H	S30409
		G-X5CrNi19-10	1.4308	CF 8	J92600
			1.4948		

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4
5 kg PE-Tube	X	X

LNT 304H rev. C-EN23-01/02/16

LNT 310

CLASSIFICATION

AWS A5.9	ER310	**A-Nr**	9	**Mat-Nr**	1.4812
ISO 14343-A	W 25 20	**F-Nr**	6		
		9606 FM	5		

GENERAL DESCRIPTION

Solid rod for welding heat resistant Cr- and CrNi-steels (25%Cr-20%Ni)
High resistance to oxidation and scaling up to approx. 1100°C

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Cr	Ni	Mo
0.1	1.7	0.5	26	21	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	AW	360	600	35	100

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI	UNS
	X10CrAl24		1.4762		
		G-X25CrNiSi18-9	1.4825		
		G-X40CrNiSi22-9	1.4826		
	X15CrNiSi20-12		1.4828		
		G-X25CrNiSi20-14	1.4832		
	X15CrNiSi25-20		1.4841	310S	S31008
				CK20	J94202
	X12CrNi25-21		1.4845		
		G-X40CrNiSi25-20	1.4848	HK40	

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4
5 kg PE-Tube	X	X	X

LNT 310 : rev. C-EN23-01/02/16

LNT NiCro 60/20

CLASSIFICATION

AWS A5.14	ERNiCrMo-3	**A-Nr**	-	**Mat-Nr**	2.4831
ISO 18274	S Ni 6625 (NiCr22Mo9Nb)	**F-Nr**	43		
		9606 FM	6		

GENERAL DESCRIPTION

Solid rod for welding of nickel alloys
Extreme resistance to various corrosion forms
High chromium and molybdenum content

SHIELDING GASES (ACC. ISO 14175)

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

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Cr	Mo	Nb	Fe
0.03	0.1	0.1	bal.	22	9	3.5	0.4

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	520	800	35	130	100

EXAMPLES OF MATERIALS TO BE WELDED

Ni-alloy grades	DIN/EN	Mat. Nr	ASTM/ACI	UNS
NiCrMo-steel Type alloy 625 and welding dissimilar high NiCrMo-steels for corrosion and heat resisting purposes				
	X1NiCrMoCuN25-20-6	1.4529	Alloy 925	N08925
	X1NiCrMoCu25-20-5	1.4539	Alloy 904L	N08904
	X1CrNiMoCuN20-18-7	1.4547	Alloy 254	S31254
	X2NiCrAlTi32-20	1.4558	Alloy 800L	N08800
	G-X10NiCrNb32-20	1.4859		
	X10NiCrAlTi32-20	1.4876	Alloy 800/800H	N08800/-10
	NiCr22Mo6Cu	2.4618	Alloy G	N06007
	NiCr22Mo7Cu	2.4619	Alloy G-3	N06985
	NiCr21Mo6Cu	2.4641	Alloy 825hMo	N08821
	NiCr20CuMo	2.4660	Alloy 20	N08020
	NiCr15Fe	2.4816	B168-Alloy 600	N06600
	NiCr22Mo9Nb	2.4856	B443-Alloy 625	N06625
	NiCr21Mo	2.4858	B424-Alloy 825	N08825
	NiCr20Ti	2.4951	Alloy 75	N06075
	NiCr20TiAl	2.4952	Alloy 80A	N07080
Low alloy steels				
	10Ni14 (3.5% Ni)	1.5637	ASTM A333 Grade 3	-
	12Ni19, X12Ni5	1.5680	-	K41583
9% Ni-steel for LNG storage tanks				
	X8Ni9	1.5662	A353/A353M	-
	X8Ni9 / 8%Ni	1.5662	A553/A553M Type I/II	- / K71340

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
2.5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT NiCro 60/20: rev. C-EN23-01/02/16

GTAW

LNT NiCro 70/19

CLASSIFICATION

AWS A5.14	ERNiCr-3	**A-Nr**	-	**Mat-Nr**	2.4806
ISO 18274	S Ni 6082 (NiCr20Mn3Nb)	**F-Nr**	43		
		9606 FM	6		

GENERAL DESCRIPTION

Solid rod for welding nickel based alloys, dissimilar metals and cladding
High resistance to oxidation and high impact toughness at low temperature

SHIELDING GASES (ACC. ISO 14175)

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

APPROVALS

TÜV

+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Cr	Nb	Cu	Fe
0.03	3.0	0.2	bal.	20	2.5	0.1	1.0

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	400	680	40	150	120

EXAMPLES OF MATERIALS TO BE WELDED

Ni-alloy grades	BS3076	DIN 17744/17465 SEW 595	Mat. Nr	ASTM/ACI B366	UNS
Ni-base high Cr alloyed steel for low and high corrosion searching application					
	Na 14	NiCr15Fe	2.4816	B168-Alloy 600	N06600
		LC-NiCr15Fe	2.4817	Alloy 600L	N06600
		NiCr20Ti	2.4951	Alloy 75	
		NiCr20TiA1	2.4952	Alloy 80A	N07080
	Na 15	X10NiCrAlTi32-20	1.4876	Alloy 800/800H	N0800/10
		NiCr23Fe	2.4851	Alloy 601(H)	N06601
	Na 17	X12NiCrSi36-16	1.4864	330	N08330
		G-X40NiCrNb35-25	1.4852		
		G-X40NiCrSi35-25	1.4857	HP	

Un- and low alloy heat and creep resistant steel to stainless steel

APPLICATION ADVICE

Limit heat-input (HI<1.5kJ/mm) and interpass temperature (Ti<150°C)

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4	3.2
2.5 kg PE-Tube	X	X	X

Note : Cut length = 1000 mm

LNT NiCro 70/19: rev. C-EN24-01/02/16

GTAW

LNT NiCroMo 59/23

CLASSIFICATION

AWS A5.14	ERNiCrMo-13	**A-Nr**	-	**Mat-Nr**	2.4607
ISO 18274	S Ni 6059 (NiCr23Mo16)	**F-Nr**	43		
		9606 FM	6		

GENERAL DESCRIPTION

Solid rod for welding nickel base alloys with high CrMo content
Excellent resistance against pitting, stress, and crevice corrosion in acid sulfur phosphorus and chlorine surroundings
Suitable for dissimilar joints

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV

+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Cr	Mo	Al	Fe
0.015	0.5	0.06	59	23	16	0.4	1.5

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2% proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	AW	400	700	25	90

EXAMPLES OF MATERIALS TO BE WELDED

Ni-alloy grades	DIN 17744	Mat. Nr	ASTM / ACI	UNS
Ni-base high CrMo steel				
	NiCr23Mo16	2.4605		N06059
	NiMo16Cr16Ti	2.4610	C-4	N06455
	NiMo16Cr15Ti	2.4819	C-276	N10276
	NiCr21Mo14W	2.4602	C-22	N06022
	NiCr22Mo9Nb	2.4856	625	N06625
High Mo stainless steel for high corrosion environments				
	EN 10088-1/-2			
	X1NiCrMoCuN25-20-7	1.4529	904hMo	N08925
	X1CrNiMoCuN20-18-7	1.4547		S31254

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	*Note : Cut length = 1000 mm*
2.5 kg PE-Tube	X	X	X	

LNT NiCroMo 59/23: rev. C-EN23-01/02/16

LNT NiCu 70/30

CLASSIFICATION

AWS A5.14	ERNiCu-7	**A-Nr**	-	**Mat-Nr**	2.4377
ISO 18274	S Ni 4060 (NiCu30MnTi)	**F-Nr**	42		
		9606 FM	6		

GENERAL DESCRIPTION

Solid rod for welding Monel and NiCu-alloys to mild and low alloy steels
Can be used as well for welding mild and low alloy steels to NiCu alloys
High resistance to seawater corrosion

SHIELDING GASES (ACC. ISO 14175)

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

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Cu	Fe	Ti
0.06	3.5	0.5	65	30	1.1	2.0

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	Impact ISO-V(J) -196°C
Typical values	I1	AW	350	560	40	160	140

EXAMPLES OF MATERIALS TO BE WELDED

Ni-alloy grades	BS3076	DIN 17743	Mat. Nr	ASTM/ACI	UNS
	NA 13	NiCu30Fe	2.4360	Monel 400	N04400
		G-NiCu30Nb	2.4365		
	NA 18	NiCu30Al	2.4375	Monel K500	N05500

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2
2.5 kg PE-Tube	X	X	X	X

Note : Cut length = 1000 mm

LNT NiTi

CLASSIFICATION

AWS A5.14	ERNi1	**A-Nr**	-	**Mat-Nr**	2.4155
ISO 18274	S Ni 2061 (NiTi3)	**F-Nr**	41		
		9606 FM	6		

GENERAL DESCRIPTION

Solid wire for welding pure nickel and nickel alloys and joining these materials with non alloy/low alloy steel
Suitable for surfacing carbon steels

SHIELDING GASES (ACC. ISO 14175)

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

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	Mn	Si	Ni	Ti	Fe
0.03	0.5	0.4	bal.	2.8	0.06

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	I1	AW	250	460	30	120

EXAMPLES OF MATERIALS TO BE WELDED

DIN-classification	Mat. Nr	ASTM/ACI
Ni 99.6	2.4060	
Ni 99.8	2.4050	
Ni 99.6Si	2.4056	
Ni 99.4Fe	2.4062	
Ni 99.2	2.4066	Alloy 200
LC-Ni 99	2.4068	Alloy 201
LC-Ni 99.6	2.4061	Alloy 205
NiMn10	2.4108	
NiMn5	2.4116	

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4	*Note : Cut length = 1000 mm*
2.5 kg PE-Tube	X	X	

LNT NiTi: rev. C-EN24-01/02/16

LNT CuNi30

CLASSIFICATION

AWS A5.7	ERCuNi	**A-Nr**	-	**Mat-Nr**	2.0837
EN 14640	S Cu 7158 (CuNi30)	**F-Nr**	34		
		9606 FM	-		

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

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

C	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/mm²)	Tensile strength (N/mm²)	Elongation (%)	Hardness HB	Impact ISO-V(J) +20°C
Typical values	I1	AW	250	400	30	70	100

EXAMPLES OF 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

Diameter (mm)	**1.6**	**2.0**	**2.4**
2.5 kg PE-Tube	X	X	X

LNT CuSn6

CLASSIFICATION

AWS A5.7	ERCuSn-A	**A-Nr**	-	**Mat-Nr**	2.1022
EN ISO 24373	S Cu 5180 (CuSn6P)	**F-Nr**	33		
		9606 FM	-		

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 WIRE

C	Sn	P
bal.	6.0	0.2

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	0.2 proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Hardness HB	Impact ISO-V(J) +20°C
Typical values	I3	AW	150	260	20	75	80

EXAMPLES OF 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

Diameter (mm)	2.0	2.4	3.2
2.5 kg PE-Tube	X	X	X

LNT CuSn6: rev. EN 27-01/02/16

LNT CuSi3

CLASSIFICATION

AWS A5.7	ERCuSi-A	**A-Nr**	-	**Mat-Nr**	2.1461
EN ISO 24373	S Cu 6560 (CuSi3Mn1)	**F-Nr**	32		
		9606 FM	-		

GENERAL DESCRIPTION

Solid rod for GTA-welding of low alloy 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

C	Sn	Mn	Si	Zn
bal.	0.1	1.0	3.0	0.1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Hardness HB	Impact ISO-V(J) +20°C
Typical values	I1	AW	120	350	40	95	60

EXAMPLES OF MATERIALS TO BE WELDED

Copper, low alloy copper and copper-zinc alloys

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4
2.5 kg PE-Tube	X	X

SuperGlaze® TIG 1070

CLASSIFICATION

		A-Nr	-
ISO 18273	S Al 1070 (Al99.7)	**F-Nr**	21
		Mat-Nr	3.0259

GENERAL DESCRIPTION

Highly resistant to chemical corrosion and good crack resistance
Suitable for electrical and chemical applications utilizing aluminium base metal with little or no alloying elements
Like all 1xxx filler alloys. Al 1070 is one of the softest aluminium MIG wire and requires extra care to ensure good feeding

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)
Flow rate	14.2 - 23.6L/min

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	V	Ti	Be
min. 99.7	max. 0.2	max. 0.25	max. 0.04	max. 0.03	max. 0.03	0	max. 0.04	max. 0.05	max. 0.03	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.03%

GTAW

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	20-30	65-80	29-35

PHYSICAL PROPERTIES

Melting range : 647 - 658°C
Density : approximately 2700 kg/m³

APPLICATIONS

Joining 1xxx alloys to themselves or other alloys
Bus Bars
Electrical Boxes
Heat Exchangers
Metallizing
Electro-technical. Chemical. Construction and Food Industry

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4	3.2
5 kg cardboard box	X	X	X

Note : Cut length = 1000 mm

Superglaze® TIG 1070: rev. C-EN02-01/02/16

SuperGlaze® TIG 1100

CLASSIFICATION

AWS 5.10	R1100	**A-Nr**	-
ISO 18273	S Al 1100 (Al99.0Cu)	**F-Nr**	21
EN 573.3	EN AW-Al99.0Cu	**Mat-Nr**	-

GENERAL DESCRIPTION

Highly resistant to chemical corrosion and good crack resistance
Suitable for electrical and chemical applications utilizing aluminium base metal with little or no alloying elements
Like all 1xxx filler alloys. Al 1100 is one of the softest aluminium MIG wire and requires extra care to ensure good feeding

SHIELDING GASES (ACC. ISO 14175)

I1	Inert gas Ar (100%)
Flow rate	14.2 - 23.6L/min

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
min. 99.0	A	A	0.05-0.20	max. 0.05	0	0	max. 0.10	0	max. 0.0003

Notes : A = Si+Fe max. 0.95
Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	20-30	65-80	29-35

PHYSICAL PROPERTIES

Melting range	: 647 - 658°C
Density	: approximately 2700 kg/m³

APPLICATIONS

Joining 1xxx alloys to themselves or other alloys
Bus Bars
Electrical Boxes
Heat Exchangers
Metallizing
Electro-technical. Chemical. Construction and Food Industry

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2	4.0
5 kg cardboard box	X	X	X	X	X

Note : Cut length = 1000 mm

SuperGlaze® TIG 4043

CLASSIFICATION

AWS 5.10	R4043	**A-Nr**	-
ISO 18273	S Al 4043A (AlSi5)	**F-Nr**	23
EN 573.3	EN AW-AlSi5	**Mat-Nr**	3.2245

GENERAL DESCRIPTION

Designed for welding heat treatable base alloys and more specifically 6xxx Series Alloys
Lower melting point and fluidity that 5xxx series filler alloys
Low sensitivity to weld cracking with 6xxx base alloys
Suitable for sustained elevated temperature service. i.e. above 65ºC

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)
Flow Rate : 14.2 - 23.6 L/min

APPROVALS

ABS	DB	TÜV
+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	4.5-6.0	max. 0.6	0.05-0.020	max. 0.05	0	-	max. 0.1	0	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)
Typical values	I1	AW	20-40	120-165	3-18

PHYSICAL PROPERTIES

Melting range : 573 - 625ºC
Density : approximately 2680 kg/m3

APPLICATIONS

For welding 6XXX alloys. and most casting alloys
Automotive components such as frame and drive shafts
Bicycle frames

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**1.6**	**2.0**	**2.4**	**3.2**	**4.0**	**4.8**
5 kg cardboard box	X	X	X	X	X	X

Note : Cut length = 1000 mm

Superglaze® TIG 4043: rev. C-EN22-01/02/16

GTAW

SuperGlaze® TIG 4047

CLASSIFICATION

AWS 5.10	R4047	**A-Nr**	-
ISO 18273	S Al 4047 (AlSi12)	**F-Nr**	23
EN 573.3	EN AW-AlSi12	**Mat-Nr**	3.2585

GENERAL DESCRIPTION

Lower melting point and higher fluidity than 4043 wires
Can be used as a substitute for 4043 to increase silicon content in the weld metal and minimize hot cracking and produce higher fillet weld shear strength
Can be used as a brazing alloy

SHIELDING GASES (ACC. ISO 14175)

I1 Inert gas Ar (100%)
Flow Rate : 14.2 - 23.6 L/min

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	11-13	max. 0.8	max. 0.30	max. 0.15	0.10	0	max. 0.20	0	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)
Typical values	I1	AW	60-80	130-190	5-20

PHYSICAL PROPERTIES

Melting range : 573 - 585°C
Density : approximately 2680 kg/m3

APPLICATIONS

For welding 6XXX alloys. and most casting alloys
Automotive components , radiators and air conditionning

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.4	3.2	4.0
5 kg cardboard box	X	X	X	X

Note : Cut length = 1000 mm

Superglaze® TIG 4047: rev. C-EN22-01/02/16

SuperGlaze® TIG 5087

CLASSIFICATION

		A-Nr	-
ISO 18273	S Al 5087 (AlMg4,5MnZr)	**F-Nr**	22
		Mat-Nr	3.3546

GENERAL DESCRIPTION

Designed to meet the tensile strength requirements of high magnesium alloys
For base metals with a max. of 5% Mg
The presence of Zirconium produces a fine-grained weld metal structure
Reduced tendency of solidification cracking in highly restrained welds

SHIELDING GASES (ACC. ISO 14175)

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

Flow Rate : 8 - 15 L/min

APPROVALS

GL	LR	DB	TÜV	WIWeb	
+*	+*	+	+	+	**(Valid for I1 and I3 gases)*

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Be
bal.	max. 0.25	max. 0.4	max. 0.05	0.7-1.1	4.5-5.2	0.05-0.25	max. 0.25	max. 0.15	0.10-0.20	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	125-140	275-300	17-30

PHYSICAL PROPERTIES

Melting range : 568 - 638°C
Density : approximately 2660 kg/m3

APPLICATIONS

Marine fabrication and repair
Cryogenic tanks
Shipbuilding and other high strength structural aluminium applications
Railway Industry
Automotive Industry
Trailer Industry and Offshore

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2	4.0	4.8
5 kg cardboard box	X	X	X	X	X	X

SuperGlaze® TIG 5183

CLASSIFICATION

AWS 5.10	R5183	**A-Nr**	-
ISO 18273	S Al 5183 (AlMg4.5Mn0.7(A))	**F-Nr**	22
EN 573.3	EN AW-AlMg4.5Mn	**Mat-Nr**	3.3548

GENERAL DESCRIPTION

Designed to meet the tensile strength requirements of magnesium alloys
For base materials 5083 and 5654

SHIELDING GASES (ACC. ISO 14175)

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

Flow Rate : 8 - 15 L/min

APPROVALS

ABS	GL	LR	DB	TÜV	DNV	BV	WIWeb
+	+	+	+	+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	max. 0.4	max. 0.4	max. 0.1	0.5-1.0	4.3-5.2	0.05-0.25	max. 0.25	max. 0.15	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	125-165	270-290	16-25

PHYSICAL PROPERTIES

Melting range : 568 - 638°C
Density : approximately 2660 kg/m3

APPLICATIONS

Marine fabrication and repair
Cryogenic tanks
Shipbuilding and other high strength structural aluminium applications
Military Industry
Railway & Automotive Industry
Trailer Industry and Offshore

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4	3.2	4.0
5 kg cardboard box	X	X	X	X	X

Superglaze® TIG 5183: rev. C-EN23-01/02/16

SuperGlaze® TIG 5356

CLASSIFICATION

AWS 5.10	R5356	**A-Nr**	-
ISO 18273	S Al 5356 (AlMg5Cr(A))	**F-Nr**	22
EN 573.3	EN AW-AlMg5	**Mat-Nr**	3.3556

GENERAL DESCRIPTION

General purpose filler alloy for welding 5XXX series alloys when 276 MPa tensile strength is not required.
Excellent colour match after anodizing

SHIELDING GASES (ACC. ISO 14175)

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

Flow Rate : 8 - 15 L/min

APPROVALS

ABS	GL	LR	DB	TÜV	DNV	BV
+	+	+	+	+	+	+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	max. 0.25	max. 0.4	max. 0.1	0.05-0.2	4.5-5.5	0.05-0.20	max. 0.1	0.06-0.2	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)
Typical values	I1	AW	110-120	240-296	17-26

PHYSICAL PROPERTIES

Melting range : 562 - 633°C
Density : approximately 2640 kg/m3

APPLICATIONS

Structural frames in the shipbuilding industry
Furniture. Storage tanks
Railway Industry
Automotive and trailer Industry
Formed truck panels
Automotive bumpers and supports

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**1.6**	**2.0**	**2.4**	**3.2**	**4.0**	**5.0**
5 kg cardboard box	X	X	X	X	X	X

Note : Cut length = 1000 mm

Supergaze® TIG 5356 rev. C-EN22-01/02/16

SuperGlaze® TIG 5554

CLASSIFICATION

AWS 5.10	R5554	**A-Nr**	-
ISO 18273	Al 5554	**F-Nr**	
		Mat-Nr	

GENERAL DESCRIPTION

SHIELDING GASES (ACC. ISO 14175)

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

Flow Rate : 8 - 15 L/min

APPROVALS

ABS

+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	max. 0.25	max. 0.4	max. 0.1	0.5-1.0	4.7-5.5	0.05-0.20	max. 0.25	0.05-0.20	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)
Typical values	I1	AW	125-145	275-295	17-25

PHYSICAL PROPERTIES

Melting range : 562 - 633°C
Density : approximately 2660 kg/m3

APPLICATIONS

Structural frames in the shipbuilding industry
Furnitures. Storage tanks
Railway Industry
Automotive and trailer Industry
Formed truck panels
Automotive bumpers and supports

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.4
5 kg cardboard box	X	X	X

SuperGlaze® TIG 5754

CLASSIFICATION

AWS 5.10	Al 5754	**A-Nr**	-
ISO 18273	S Al 5754 (AlMg3)	**F-Nr**	22
		Mat-Nr	3.3536

GENERAL DESCRIPTION

Magnesium alloyed aluminium for welding of alloys with a maximum of 3.5% Mg
Good corrosion resistance and excellent colour match after anodizing
Suitable for a wide range of applications in general construction and structural industry

SHIELDING GASES (ACC. ISO 14175)

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

Flow Rate : 8 - 15 L/min

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	max. 0.4	max. 0.4	max. 0.1	max. 0.5	2.6-3.6	max. 0.3	max. 0.20	max. 0.15	max. 0.0003

Notes : Unspecified elements should not exceed a total of 0.15%

MECHANICAL PROPERTIES. TYPICAL. ALL WELD METAL

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)
Typical values	I1	AW	70-80	180-200	15-20

PHYSICAL PROPERTIES

Melting range : 580 - 642°C
Density : approximately 2660 kg/m3

APPLICATIONS

General Construction Industry
Automotive bumpers and supports

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	**1.6**	**2.0**	**2.4**	**3.2**	**4.0**	**Note : Cut length = 1000 mm**
5 kg cardboard box	X	X	X	X	X	

Superglaze® TIG 5754: rev. C-EN01-01/02/16

GTAW

LNG I

CLASSIFICATION

AWS 5.2	R45*	**A-Nr**	1	**Mat-Nr**	1.0324
EN 12536	O I	**F-Nr**	6		
* Nearest classification		**Mat-Nr**	-		

GENERAL DESCRIPTION

Rods for oxy-acetylene gas welding of general construction steel
Suitable for mild steel
Max. design temperature 350°C

CHEMICAL COMPOSITION (W%) TYPICAL WIRES

C	Mn	Si	P	S	Cr	Ni	Mo
0.07	0.5	0.1	0.01	0.01	0.04	0.03	0.01

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	AW	280	390	16	50

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Type
Pipe material	L210 up to L290
General structural steels	S185 up to S275

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	3.0
5 kg cardboard box	X	X

LNG I: rev. C-EN23-01/02/16

LNG II

CLASSIFICATION

AWS 5.2	R60*	**A-Nr**	1	**Mat-Nr**	1.0349
EN 12536	O II	**F-Nr**	6		
* Nearest classification		**Mat-Nr**	-		

GENERAL DESCRIPTION

Rods for oxy-acetylene gas welding of general construction steel
Suitable for mild steel
max. design temperature 350°C
Higher strength than LNG I

CHEMICAL COMPOSITION (W%) TYPICAL WIRES

C	Mn	Si	P	S
0.10	1.1	0.15	0.01	0.01

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	AW	320	430	17	60

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Type
Pipe material	L210 up to L290
General structural steels	S185 up to S275

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.6	2.0	2.5	3.0	4.0
5 kg cardboard box	X	X	X	X	X

LNG II: rev. C-EN23-01/02/16

LNG IV

CLASSIFICATION

AWS 5.2	R65*	**A-Nr**	2	**Mat-Nr**	1.5425
EN 12536	O IV	**F-Nr**	6		
* Nearest classification		**Mat-Nr**	-		

GENERAL DESCRIPTION

Rods with 0.5% Mo for oxy-acetylene gas welding of fine grained and creep resisting steel
Design temperature max. 500°C

APPROVALS

TÜV
+

CHEMICAL COMPOSITION (W%) TYPICAL WIRES

C	Mn	Si	P	S	Mo
0.09	1.0	0.19	0.01	0.01	0.50

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	AW	380	500	22	60

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	Standard	Type
Pipe material	EN 10208-2	L210 up to L290
General structural steels		S185 up to S275
Boiler and pressure vessel steel		P295, P355, 16Mo3

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0	2.5	3.0	4.0
5 kg cardboard box	X	X	X	X