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GMAW  
CONSUMABLES  
MIG/MAG WIRES

# LNМ 25

## TOP FEATURES

- Stable arc and excellent feedability
- Excellent mechanical properties
- Used mainly in single pass welding

## TYPICAL APPLICATIONS

- General fabrication
- Automotive

## CLASSIFICATION

AWS A5.18 ER70S-3  
EN ISO 14341-A G 42 4 M21 2Si

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	LR	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.1	0.6

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -40°C
Typical values	M21	AW	450	540	26	150

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (B300)	16.0	E08K016P1E01
	SPOOL (B300)	16.0	E10K016P1E01
1.0	DRUM	250.0	E10D250E1S01
	SPOOL (B300)	16.0	E12K016P1E01
1.2	DRUM	250.0	E12D250E1S01

# Ultramag®

## TOP FEATURES

- Good performances in terms of feedability and weldability
- Stable arc and low spatter
- High productivity

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive

## CLASSIFICATION

AWS A5.18	ER70S-6
EN ISO 14341-A	G42 3 C1 3Si1 / G46 4 M20 3Si1 / G46 4 M21 3Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21	Mixed gas Ar+ >15-25% CO <sub>2</sub>
M20	Mixed gas Ar+ >5-15% CO <sub>2</sub>
C1	Active gas 100% CO <sub>2</sub>

## APPROVALS

ABS	LR	DNV	TÜV	DB	CE
+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.40	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-30° C	-40° C
Typical values	M21	AW	470	570	24		170
	C1	AW	450	550	25	71	130

\* AW = As welded

# Ultramag®

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
0.6	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
0.8	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0
0.9	DRUM	250.0
1.0	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.2	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.4	DRUM	500.0
1.6	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0

MIG/MAG

# Ultramag® SG3

## TOP FEATURES

- Good performances in terms of feedability and weldability
- Stable arc and low spatter
- High productivity

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 14341-A G46 3 C1 4Si1 / G46 5 M20 4Si1 / G46 5 M21 4Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
M20 Mixed gas Ar+ >5-15% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	LR	DNV	TÜV	DB	CE
+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.70	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-40°C	-50°C
Typical values	M21	AW	490	590	25		90
	C1	AW	480	570	26	180	

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
0.8	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.0	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.2	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0

# Supramig®

## TOP FEATURES

- Excellent feedability and very consistent welding performance
- Tight and stable arc with extremely low spatter
- Smooth bead profile and best appearance
- Available in all packagings from spools to drums

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive
- Robotics

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 14341-A G42 3 C1 3Si1 / G46 4 M21 3Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	LR	BV	DNV	TÜV	DB	CWB	CE
+	+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.40	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-30 °C	-40 °C
Typical values	M21	AW	480	570	28		120
	C1	AW	440	550	29	70	95

\* AW = As welded

# Supramig®

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
0.8	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	DRUM	250.0
0.9	DRUM	250.0
1.0	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0, 18.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.2	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0, 18.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.4	DRUM	250.0
1.6	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	DRUM	250.0

MIG/MAG

# Supramig® HD

## TOP FEATURES

- Excellent feedability and very consistent welding performance
- Self releasing silicate islands
- Tight and stable arc with extremely low spatter
- Deep root penetration and improved fatigue life
- Available in all packagings from spools to drums

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive
- Robotics

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 14341-A G42 3 C1 3Si1 / G46 4 M21 3Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	LR	BV	DNV	RINA	TÜV	DB	CWB	CE
+	+	+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.40	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-30°C	-40°C
Typical values	M21	AW	480	570	28		120
	C1	AW	440	550	29	70	95

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
1.0	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.2	SPOOL (S300)	15.0
	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.32	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0
1.6	SPOOL (B300)	16.0
	DRUM	250.0



# Supramig® Ultra

## TOP FEATURES

- Excellent feedability and very consistent welding performance
- Tight and stable arc with extremely low spatter
- Smooth bead profile and best appearance
- Available in all packagings from spools to drums

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive
- Robotics

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 14341-A G46 3 C1 4Si1 / G50 5 M21 4Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	BV	DNV	TÜV	DB	CE
+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.70	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
						-20 °C	-40 °C	-50 °C
Typical values	M21	AW	500	600	25	80	110	70
	C1	AW	480	590	26	120	140	

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
0.8	SPOOL (B300)	16.0
	SPOOL (S200)	5.0
1.0	SPOOL (S300)	15.0
	SPOOL (B300)	16.0, 18.0
	DRUM	250.0, 500.0
	SPOOL (S300)	15.0
1.2	SPOOL (B300)	16.0, 18.0
	SPOOL (B5300)	16.0, 18.0
	DRUM	250.0, 500.0
	SPOOL (S300)	15.0
1.4	DRUM	250.0
	DRUM	250.0, 500.0
2.0	DRUM	500.0

# Supramig® Ultra HD

## TOP FEATURES

- Excellent feedability and very consistent welding performance
- Self releasing silicate islands
- Tight and stable arc with extremely low spatter
- Deep root penetration and improved fatigue life
- Available in all packagings from spools to drums

## TYPICAL APPLICATIONS

- General Constructions
- Heavy Fabrication
- Infrastructures
- Automotive
- Robotics

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 14341-A G46 3 C1 4Si1 / G50 5 M21 4Si1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

ABS	BV	DNV	TÜV	DB	CE
+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si
0.08	1.70	0.85

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-20°C	-40°C
Typical values	M21	AW	500	600	25	80	110
	C1	AW	480	590	26	120	140

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)
1.0	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.2	SPOOL (S200)	5.0
	SPOOL (S300)	15.0
	SPOOL (B300)	16.0, 18.0
	SPOOL (BS300)	16.0, 18.0
	DRUM	250.0, 500.0
1.32	SPOOL (B300)	16.0
	SPOOL (BS300)	16.0
	DRUM	250.0, 500.0
1.4	SPOOL (B300)	16.0
	DRUM	250.0, 500.0

# LNМ 12

## TOP FEATURES

- Used for welding low alloy creep resistant ferritic steels and fine grained steels
- Ideal for low temperature applications in the as welded condition with service temperatures in range -30°C to +500°C
- Recommended for welding 0.5% Mo low-alloy steels and for high strength steels.

## TYPICAL APPLICATIONS

- Oil & Gas
- Thermal Power
- Petrochemical
- Chemical

## CLASSIFICATION

AWS A5.28 ER70S-A1  
 EN ISO 14341-A G 46 3 M21 2Mo  
 EN ISO 21952-A G MoSi

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
 C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Mo
0.1	1.12	0.6	0.5

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-20°C
Typical values	M21	AW	503	606	24	130	74

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (B300)	15.0	580914
1.0	SPOOL (B300)	15.0	581133
1.2	SPOOL (B300)	15.0	580921

# LNM 19

## TOP FEATURES

- Also suitable where some resistance to hydrogen attack by sulphur bearing crude oil is required
- Excellent mechanical characteristics.
- Can also be used to weld 0.9% Cr and 0.5% Mo steels.

## TYPICAL APPLICATIONS

- Oil & Gas
- Thermal Power
- Pressure vessels
- Chemical
- Boilers, plates, tubes steels

## CLASSIFICATION

AWS A5.28 ER80S-G\*  
EN ISO 21952-A G CrMo1Si

\* Nearest classification ER80S-B2

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Mo
0.1	1.0	0.5	1.2	0.5

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M21	PWHT 700°C/1h	530	635	23	160

\* PWHT = Post Weld Heat Treatment

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	15.0	581089
1.2	SPOOL (B300)	15.0	581065

# LNМ 20

## TOP FEATURES

- Deposit insensitive to cracking.
- Good radiographic quality.

## TYPICAL APPLICATIONS

- Oil & Gas
- Thermal Power
- Pressure vessels
- Chemical
- Boilers, plates, tubes steels

## CLASSIFICATION

AWS A5.28 ER90S-G\*

EN ISO 21952-A G CrMo2Si

\*Nearest classification ER90S-B3

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

C1 Active gas 100% CO<sub>2</sub>

M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Mo
0.08	0.9	0.6	2.5	1.0

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M21	PWHT 690°C/1h	560	680	20	100

\* PWHT = Post Weld Heat Treatment

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	15.0	581164
1.2	SPOOL (B300)	15.0	581157

# LNM 28

## TOP FEATURES

- Due to the alloying system, it can also be used for welding of high yield strength steels.
- Contains a small percentage of copper to help preventing further oxidation of the weld bead
- Excellent mechanical characteristics and resistance to corrosion.

## TYPICAL APPLICATIONS

- Infrastructures
- Transmission towers, barriers, ducting, chimneys
- Exhaust Systems

## CLASSIFICATION

AWS A5.28 ER 80S-G  
EN ISO 16834-A G Z Mn3Ni1Cu\*

\* Nearest classification

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>  
C1 Active gas 100% CO<sub>2</sub>

## APPROVALS

LR	DNV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), 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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-20°C	-40°C
Typical values	M21	AW	570	620	25	90	70

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	16.0	S10K016PCE01, S10K016PCX01
1.2	SPOOL (B300) DRUM	16.0 250.0	S12K016PCE01 S12D250ECS01

# LNM MoNi

## TOP FEATURES

- The weld metal contains less than 1% Ni conforming to NACE requirement.
- For welding high yield strength steels.

## TYPICAL APPLICATIONS

- Infrastructures
- Earthmoving
- Cranes
- Structural Steels

## CLASSIFICATION

AWS A5.28 ER100S-G  
EN ISO 16834-A G 62 4 M21 Mn3NiCrMo

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %, TYPICAL, WIRE)

C	Mn	Si	Ni	Cr	Mo	Cu
0.10	1.65	0.75	0.55	0.60	0.30	0.08

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
						-20 °C	-40 °C	-60 °C
Typical values	M21	AW	635	770	19	100	90	70

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	15.0	580822
1.2	SPOOL (B300)	15.0	580839

# LNM MoNiVa

## TOP FEATURES

- Excellent mechanical properties.
- For low temperature applications down to -40°C.
- Low heat inputs are recommended to obtain optimum joint mechanical properties.

## TYPICAL APPLICATIONS

- Infrastructures
- Earthmoving
- Cranes
- Structural Steels

## CLASSIFICATION

AWS A5.28 ER110S-G  
EN ISO 16834-A G 69 4 M21 Mn3Ni1CrMo

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Ni	Cr	Mo	V	Cu
0.08	1.7	0.44	1.35	0.23	0.3	0.08	0.25

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -40°C
Typical values	M21	AW	710	790	20	70

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (B300)	15.0	581218
1.0	SPOOL (B300)	16.0	S10K016PME01
	DRUM	250.0	S10D250EMS01
1.2	SPOOL (S300)	15.0	S12P015PMC01
	SPOOL (B300)	16.0	S12K016PME01
1.4	DRUM	250.0	S12D250EMS01
	DRUM	250.0	S14D250EMS01



# LNM MoNiCr

## TOP FEATURES

- Excellent mechanical properties.
- Up to 890 MPa yield strength steels
- Can be used for low temperature applications up to -40°C.

## TYPICAL APPLICATIONS

- Infrastructures
- Earthmoving
- Cranes
- Structural Steels

## CLASSIFICATION

AWS A5.28 ER120S-G  
EN ISO 16834-A G 89 4 M21 Mn4Ni2CrMo

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Ni	Cr	Mo
0.09	1.8	0.80	2.20	0.30	0.55

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-40°C	-60°C
Typical values	M21	AW	>890	950	>15	70	>50

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (BS300)	15.0	580584
1.0	SPOOL (BS300)	15.0	580587
1.2	SPOOL (BS300)	15.0	580594

# LNM Ni1

## TOP FEATURES

- Ideal for low temperature applications.
- The weld metal contains less than 1% Ni conforming to NACE requirements
- Stable arc and excellent feedability

## TYPICAL APPLICATIONS

- LNG
- Cryogenic Applications
- Pipelaying

## CLASSIFICATION

AWS A5.28 ER80S-Ni1  
EN ISO 14341-A G 46 5 M21 3Ni1

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Ni
0.09	1.2	0.6	0.9

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-60°C	-20°C
Typical values	M21	AW	480	580	30	60	

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B5300)	15.0	582468
1.2	SPOOL (B5300)	15.0	582482

# LNM Ni2.5

## TOP FEATURES

- Ideal for low temperature applications.
- Excellent mechanical characteristic both when welded and after stress relieving.
- High impact value at low temperature (-60°C as welded and -90°C after stress relieving 15h/580°C)

## TYPICAL APPLICATIONS

- LNG
- Cryogenic Applications

## CLASSIFICATION

AWS A5.28 ER80S-Ni2  
EN ISO 14341-A G46 6 M21 2Ni2

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), 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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -60°C
Typical values	M21	AW	490	580	24	85

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (BS300)	15.0	580372
1.2	SPOOL (BS300)	15.0	583632

# Pipeliner® 80Ni1

## TOP FEATURES

- Root pass capability up to X100 and hot, fill and cap pass up to X80 grade pipe
- Impact toughness capable of exceeding 69 - 95 J (51 - 70 ft-lbf) at -50°C (-58°F)
- Q2 Lot® - Certificate showing actual deposit chemistry available online
- Excellent wire placement for narrow groove welding
- ProTech® packaging system

## TYPICAL APPLICATIONS

- Root pass welding on up to X100 grade pipe
- Hot, fill and cap pass welding on up to X80 grade pipe
- Pipeline
- Offshore

## CLASSIFICATION

AWS A5.28 ER80S-G  
EN ISO 14341-A G 3Ni1

## SHIELDING GASES (ACC. EN ISO 14175)

C1 Active gas 100% CO<sub>2</sub>  
M20/M21 Mixed gas 75-95% Ar/Balance CO<sub>2</sub>

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	P	S	Ni	Mo	Ti	Al
0.07	1.55	0.70	0.11	0.10	0.90	<0.01	0.08	<0.01

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						-29°C	-50°C
Required: AWS A5.28				min. 550			
	C1	AW	600	665	28	80	45
	M20	AW	650	730	27	110	70

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL	4.5	ED033119
	SPOOL	15.0	ED033121
1.2	SPOOL	4.5	ED033122
	SPOOL	15.0	ED033120

# LNM 304LSi

## TOP FEATURES

- The low carbon reduces the propensity to intergranular carbide precipitation, which increases the resistance to intergranular corrosion without the use of stabilizers.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.
- Better weldability and appearance

## TYPICAL APPLICATIONS

- Pipework
- Plates fabrication
- Vessel construction
- Cladding

## CLASSIFICATION

AWS A5.9 ER308LSi  
EN ISO 14343-A G 19.9 LSi

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo
0.02	1.9	0.8	20	10	0.1

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-40°C
Typical values	M12	AW	394	568	40	85	41

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (S200)	5.0	581381
	SPOOL (BS300)	15.0	581386
1.0	SPOOL (S200)	5.0	581391
	SPOOL (BS300)	15.0	581393
	DRUM	250.0	581287
1.2	SPOOL (BS300)	15.0	581409
	DRUM	250.0	581362
1.6	SPOOL (BS300)	15.0	581416

# LNM 316LSi

## TOP FEATURES

- The higher Si level results in a smooth weld bead shape and even appearance with excellent toe blending particularly in fillet welds.
- The weld metal has a high resistance to pitting and crevice corrosion by non-oxidising acids.
- Used for applications with service temperatures <400°C.

## TYPICAL APPLICATIONS

- Pipework
- Plates fabrication
- Shipbuilding
- Cladding

## CLASSIFICATION

AWS A5.9 ER316LSi  
EN ISO 14343-A G 19 12 3 LSi

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo
0.01	1.8	0.8	18.5	12.2	2.5

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
						+20°C	-120°C	-196°C
Typical values	M12	AW	452	580	30	150	70	44

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (S200)	5.0	580631
	SPOOL (BS300)	15.0	581423
	SPOOL (S300)	15.0	581426
0.9	SPOOL (BS300)	15.0	581428
	SPOOL (S200)	5.0	580440
1.0	SPOOL (BS300)	15.0	581430
	DRUM	250.0	581263
	SPOOL (BS300)	15.0	581447
1.2	DRUM	250.0	581270

# LNM 309LSi

## TOP FEATURES

- The weld metal has a delta-ferrite content of ~12% resulting in a high resistance to hot cracking.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.
- Also used for the welding of clad steels where service temperatures are below 300°C.

## TYPICAL APPLICATIONS

- General fabrication
- Transport
- Process Industries

## CLASSIFICATION

AWS A5.9 ER309LSi  
EN ISO 14343-A G 23 12 L Si

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo
0.02	1.8	0.8	23.3	13.8	0.14

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20 °C	-20 °C
Typical values	M12	AW	436	582	37	87	80

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (BS300)	15.0	581669
	SPOOL (BS300)	15.0	581770
1.0	SPOOL (BS300)	15.0	595789
	SPOOL (S300)	15.0	595792
	DRUM	250.0	581708
1.2	SPOOL (BS300)	15.0	595796
	SPOOL (S300)	15.0	595794
	DRUM	250.0	581710

# LNМ 347Si

## TOP FEATURES

- The weld metal has a high resistance to corrosive media at service temperatures <400°C.
- The presence of niobium reduces the propensity of intergranular chromium carbide precipitation and thus reduces the susceptibility to intergranular corrosion.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

## TYPICAL APPLICATIONS

- Process Industries
- Pharmaceutical Equipment
- High Temperature Stainless Applications

## CLASSIFICATION

AWS A5.9 ER347Si  
EN ISO 14343-A G 19 9 NbSi

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo	Nb
0.05	1.4	0.7	19.2	9.9	0.1	0.6

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-196°C
Typical values	M12	AW	460	650	35	100	40

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (BS300)	15.0	581249
	DRUM	250.0	581257
1.2	SPOOL (BS300)	15.0	581256
	DRUM	250.0	581258



# LNМ 307

## TOP FEATURES

- The increased silicon content promotes weld pool fluidity resulting in a smoother weld deposit.
- Useful in case of difficult weldability.
- Often used as a buffer layer for hardfacing applications

## TYPICAL APPLICATIONS

- Hardfacing
- Exhaust Systems
- Dissimilar joints
- Quenched and tempered steels

## CLASSIFICATION

AWS A5.9 ER307\*  
EN ISO 14343-A G 18 8 Mn

\* Nearest classification

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni
0.07	7.1	0.8	18.6	8.0

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M12	AW	400	630	40	80

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (BS300)	15.0	581901
	SPOOL (BS300)	15.0	581904
1.0	DRUM	250.0	581959
	SPOOL (BS300)	15.0	581911
1.2	DRUM	250.0	581914

# LNM 309H

## TOP FEATURES

- High resistance to oxidation up to 1050°C
- High carbon content

## TYPICAL APPLICATIONS

- Furnaces Fabrication

## CLASSIFICATION

AWS A5.9 ER309

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo
0.08	1.8	0.4	23.6	13.2	0.1

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M12	AW	400	640	35	110

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (BS300)	15.0	595765

# LNM 310

## TOP FEATURES

- High temperature ductility and excellent resistance to oxidation at working temperatures <1000°C.
- The weld deposit is fully austenitic
- Excellent corrosion resistance even when hot.

## TYPICAL APPLICATIONS

- Petrochemical
- Heat Exchangers
- Hot water boilers
- Furnaces Fabrication

## CLASSIFICATION

AWS A5.9 ER310  
EN ISO 14343-A G 25 20

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo
0.1	1.7	0.45	26	21	0.1

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M12	AW	355	610	35	110

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B5300)	15.0	595871
1.2	SPOOL (B5300)	15.0	581935

# LNM 318Si

## TOP FEATURES

- High resistance to intergranular corrosion and general corrosion conditions
- The increased silicon results in increased weld pool fluidity to give a smooth deposit appearance.
- The presence of the stabilizer improves resistance to precipitation of chromium carbides.

## TYPICAL APPLICATIONS

- Fabrication of pipes, plates, vessels

## CLASSIFICATION

AWS A5.9 ER318\*  
EN ISO 14343-A G 19 12 3 NbSi

\* Nearest classification

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo	Nb
0.05	1.4	0.7	18.6	11.7	2.5	0.7

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	M12	AW	410	630	35	100

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (BS300)	15.0	596014

# LNM 4455

## TOP FEATURES

- Not susceptible for hot cracking

## TYPICAL APPLICATIONS

- Non-magnetic applications
- Cryogenic Applications
- LNG

## CLASSIFICATION

AWS A5.9 ER316LMn  
EN ISO 14343-A G 20 16 3 Mn N L

## SHIELDING GASES (ACC. EN ISO 14175)

M12 Mixed gas Ar+ 0.5-5% CO<sub>2</sub>  
M13 Mixed gas Ar+ 0.5-3% O<sub>2</sub>

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Si	Cr	Ni	Mo	Nb
0.015	7	0.4	20	16	3.0	0.15

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -196°C
Typical values	M12	AW	400	600	30	50

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (BS300)	15.0	692125
1.2	SPOOL (BS300)	15.0	692129
1.6	SPOOL (BS300)	15.0	692136

# LNM CuAl8

## TOP FEATURES

- Used for welding galvanized steel sheets and components in the automobile industry.
- It is an iron-free aluminum bronze, which composition offers a very high resistance to sea water-corrosion and to the most commonly used acids in any concentrations and at a wide range of operating temperatures.
- High erosion resistance.

## TYPICAL APPLICATIONS

- Automotive components
- Galvanized Steels

## CLASSIFICATION

AWS A5.7      ERCuAl-A1  
EN ISO 24373-A      S Cu 6100 (CuAl7)

## SHIELDING GASES (ACC. EN ISO 14175)

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

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Cu	Al	Mn
bal.	8	0.3

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Hardness (HB)
Typical values	I1	AW	185	430	30	95

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	12.0	582871
	DRUM	200.0	582875
1.2	SPOOL (B300)	12.0	581478
	DRUM	200.0	581480

# LNM CuSi3

## TOP FEATURES

- This wire is frequently used for joining in artistic foundries, for welding galvanized sheets and even as a steel cladding.
- It is also suitable for surfaces subject to corrosion.
- Used also for GMA Brazing where a very small active component is suggested in the shielding gas.

## TYPICAL APPLICATIONS

- Cladding
- Brazing
- Automotive

## CLASSIFICATION

AWS A5.7      ERCuSi-A  
EN ISO 24373-A      S Cu 6560 (CuSi3Mn1)

## SHIELDING GASES (ACC. EN ISO 14175)

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

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Cu	Sn	Mn	Si	Zn
bal.	0.1	1.0	3.0	0.1

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Hardness (HB)	Impact ISO-V (J) +20°C
Typical values	I1	AW	120	350	40	95	60

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL (S200)	5.0	587012
	SPOOL (BS300)	12.0	587029
1.0	SPOOL (BS300)	12.0	587036
	SPOOL (BS300)	12.0	587039

# LNM CuSn

## TOP FEATURES

- Solid wire for welding of copper
- Widely used in oven soldering.

## CLASSIFICATION

AWS A5.7      ERCu  
EN ISO 24373-A      S Cu 1898 (CuSn1)

## SHIELDING GASES (ACC. EN ISO 14175)

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

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), 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 (MPa)	Tensile strength (MPa)	Elongation (%)	Hardness (HB)
Typical values	I1	AW	100	220	60	35

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	SPOOL (B300)	12.0	580945



# SuperGlaze® MIG 4043

## TOP FEATURES

- Designed for welding heat-treatable base alloys and more specifically the 6XXX series alloys
- Lower melting point and more fluidity than the 5XXX series filler alloys
- Low sensitivity to weld cracking with the 6XXX series base alloys

## TYPICAL APPLICATIONS

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

## CLASSIFICATION

AWS A5.10 ER4043  
EN ISO 18273-A S Al 4043A (AlSi5)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Zn	Ti	Be
bal.	5.26	0.15	0.01	0.01	0.03	0.001	0.01	<0.0002

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
	I1	AW	20-40	120-165	3-18

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL	7.0	ED701753
	SPOOL	7.3	ED702747
1.2	SPOOL	7.0	ED701754
	SPOOL	7.3	ED702748
	DRUM	136.0	ED036610
1.6	SPOOL	7.0	ED701755
	DRUM	136.0	ED036611

# SuperGlaze® MIG 4047

## TOP FEATURES

- Substitute for 4043 to increase Silicon in weld metal
- Minimize hot cracking to produce higher fillet weld shear strength
- Cosmetic appearing welds
- Lower melting point and higher fluidity than 4043 wires

## TYPICAL APPLICATIONS

- Automotive components
- Heat Exchangers
- Body panels
- Brazing of aluminum sheets, extrusions and castings

## CLASSIFICATION

AWS A5.10 ER4047  
EN ISO 18273-A S Al 4047 (AlSi12)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

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

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
	I1	AW	60-80	130-190	5-20

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	DRUM	136.0	ED036613
1.6	DRUM	136.0	ED036612

# SuperGlaze® MIG 5087

## TOP FEATURES

- 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

## TYPICAL APPLICATIONS

- Marine
- Cryogenic Applications
- Shipbuilding
- Automotive
- Railway Industry

## CLASSIFICATION

AWS A5.10 ER5087  
EN ISO 18273-A S Al 5087 (AlMg4,5MnZr)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	DB
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Mn	Mg	Cr	Ti	Zr	Be
bal.	0.06	0.13	0.7	4.9	0.07	0.01	0.12	0.0002

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	SPOOL	7.3	ED703574

# SuperGlaze® MIG 5183

## TOP FEATURES

- Designed for applications where higher strength is required
- For 5083 and 5456 base materials
- Excellent corrosion resistance ideal for Ship building and marine applications

## TYPICAL APPLICATIONS

- Marine fabrication and repair
- Cryogenic tanks
- Shipbuilding
- Bicycle frames
- Railing industry

## CLASSIFICATION

AWS A5.10 ER5183  
EN ISO 18273-A S Al 5183 (AlMg4.5Mn0.7(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

ABS	LR	BV	DNV	RINA	TÜV	DB	CE
+	+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.03	0.13	0.001	0.65	4.99	0.10	0.02	0.07	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL	7.0	ED701901
1.2	SPOOL	7.0	ED701758
	DRUM	136.0	ED034791
1.6	SPOOL	7.0	ED701759
	DRUM	136.0	ED034792

# SuperGlaze® MIG HD 5183

## TOP FEATURES

- Designed for heavy duty applications
- Reduced shavings and improved feedability
- Used on 5083 and 5456 base materials
- Also used on most 5XXX and 6XXX base materials
- Excellent corrosion resistance for marine applications

## CLASSIFICATION

AWS A5.10 ER5183  
EN ISO 18273-A S Al 5183 (AlMg4.5Mn0.7(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min (for Argon)

## APPROVALS

ABS	LR	BV	RINA	TÜV	DB	CE
+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.03	0.13	0.001	0.65	4.99	0.10	0.02	0.07	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.9	SPOOL	7.3	ED035690
	SPOOL	9.1	ED035691
	DRUM	136.0	ED036341
1.2	SPOOL	9.1	ED035693
	SPOOL	7.3	ED035694
1.6	SPOOL	9.1	ED035695
	DRUM	136.0	ED036343

# SuperGlaze® MIG 5356

## TOP FEATURES

- General purpose filler alloy for 5XXX and 6XXX series alloys
- The most widely used welding alloy
- High strength filler metal

## TYPICAL APPLICATIONS

- Shipbuilding
- Railway Industry
- Automotive
- Storage tanks

## CLASSIFICATION

AWS A5.10 ER5356  
EN ISO 18273-A S Al 5356 (AlMg5Cr(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

ABS	LR	BV	DNV	RINA	TÜV	DB	CWB	CE
+	+	+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.05	0.09	0.03	0.12	4.90	0.08	<0.01	0.15	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
	I1	AW	110-120	240-296	17-26

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
0.8	SPOOL	7.0	ED701762
	SPOOL	2.0	ED703753
1.0	SPOOL	7.0	ED701763
	SPOOL	7.3	ED702736
	SPOOL	2.0	ED702755
	SPOOL	7.0	ED701764
1.2	SPOOL	7.3	ED702737
	DRUM	136.0	ED034550
	SPOOL	7.0	ED701765

# SuperGlaze® MIG HD 5356

## TOP FEATURES

- Designed for heavy duty applications
- Reduced shavings and improved feedability
- General purpose filler alloy for welding 5XXX series alloys

## TYPICAL APPLICATIONS

- Shipbuilding
- Railway Industry
- Automotive
- Storage tanks

## CLASSIFICATION

AWS A5.10 ER5356  
EN ISO 18273-A S Al 5356 (AlMg5Cr(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min (for Argon)

## APPROVALS

ABS	LR	BV	RINA	TÜV	DB	CE
+	+	+	+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.05	0.09	0.03	0.12	4.90	0.08	<0.01	0.15	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
	I1	AW	110-120	240-296	17-26

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	SPOOL	7.0	ED703770
1.6	SPOOL	7.0	ED703804

# SuperGlaze® MIG 5556A

## TOP FEATURES

- High Magnesium alloyed wire
- The elements are controlled to obtain increased weld strength over the 5356 alloy
- Good ductility and improved crack resistance
- High Corrosion resistance for Marine applications

## TYPICAL APPLICATIONS

- Marine
- Aircraft
- Military Industry

## CLASSIFICATION

AWS A5.10 ER5556A  
EN ISO 18273-A S Al 5556A (AlMg5Mn)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Mn	Mg	Cr	Ti	Be
bal.	0.05	0.11	0.6	5.1	0.08	0.09	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
	I1	AW	125-140	275-300	15-17

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.6	SPOOL	7.3	ED702986



# SuperGlaze® MIG 5754

## TOP FEATURES

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

## TYPICAL APPLICATIONS

- General Construction
- Structural Industry

## CLASSIFICATION

AWS A5.10 ER5754  
EN ISO 18273-A S Al 5754 (AlMg3)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

Al	Si	Fe	Cu	Mn	Mg	Cr	Ti	Be
bal.	0.07	0.13	0.01	0.29	3.0	0.06	0.05	0.0004

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL	7.0	ED701766
1.2	SPOOL	7.0	ED701767

# LNM 420FM

## TOP FEATURES

- High resistance against corrosion, abrasion and impact deformation. Hardness approximately 55-60HRc
- Weld deposits can be used at service temperatures <450°C with a minimal loss of abrasion resistance. The as deposited weld metal can be shaped or profiled by grinding.
- Ferritic and martensitic structure

## TYPICAL APPLICATIONS

- Hardfacing
- Repair
- Earthmoving

## CLASSIFICATION

EN ISO 14700-A S Fe8

## SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ >15-25% CO<sub>2</sub>

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

C	Mn	Cr	Si
0.5	0.4	9.0	3.0

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Typical values	Hardness (HRc)
	aprox. 60

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.0	SPOOL (B300)	15.0	604047
1.2	SPOOL (B300)	15.0	604054

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GTAW  
CONSUMABLES  
TIG RODS

# LNT 24

## TOP FEATURES

- Stable Arc
- Smooth bead appearance

## TYPICAL APPLICATIONS

- Galvanized Steels
- General Construction

## CLASSIFICATION

AWS A5.18 ER70S-2

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si	Ti	Zr	Al
0.05	1.20	0.5	0.10	0.05	0.08

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
					-20 °C	-30 °C
Typical values	I1	550	620	23	≥ 47J	≥ 27J

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.4	PE Tube	5.0	580210

TIG

# LNT 25

## TOP FEATURES

- Excellent mechanical and toughness properties for low temperature applications, down to -40°C.
- Stable Arc
- Good feedability

## TYPICAL APPLICATIONS

- General fabrication
- Thermal Power

## CLASSIFICATION

AWS A5.18 ER70S-3  
EN ISO 636-A W 42 5 2Si

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si
0.08	1.1	0.6

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	T16T005R1S00
2.0	PE Tube	5.0	T20T005R1S00
2.4	PE Tube	5.0	T24T005R1S00
3.0	PE Tube	5.0	T30T005R1S00
3.2	PE Tube	5.0	T32T005R1S00

TIG

# LNT 26

## TOP FEATURES

- Excellent mechanical and toughness properties for low temperature applications, down to -50°C.
- Smooth bead appearance

## TYPICAL APPLICATIONS

- General Constructions

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 636-A W 42 5 3Si1

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si
0.1	1.5	0.9

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	T16T005R6S00
2.0	PE Tube	5.0	T20T005R6S00
2.4	PE Tube	5.0	T24T005R6S00
3.2	PE Tube	5.0	T32T005R6S00

# LNT 27

## TOP FEATURES

- Excellent mechanical and toughness properties for low temperature applications, down to -50°C.
- Smooth bead appearance

## TYPICAL APPLICATIONS

- General Constructions

## CLASSIFICATION

AWS A5.18 ER70S-6  
EN ISO 636-A W 46 5 4Si1

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si
0.1	1.5	0.9

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	T16T005R3S00
2.0	PE Tube	5.0	T20T005R3S00
2.4	PE Tube	5.0	T24T005R3S00
3.2	PE Tube	5.0	T32T005R3S00

TIG

# LNT 12

## TOP FEATURES

- Used for welding low alloy creep resistant ferritic steels and fine grained steels
- Ideal for low temperature applications in the as welded condition with service temperatures in range -20°C to +500°C

## TYPICAL APPLICATIONS

- Chemical
- Petrochemical
- Oil & Gas
- Thermal Power

## CLASSIFICATION

AWS A5.28 ER70S-A1  
 EN ISO 636-A W 46 3 2Mo  
 EN ISO 21952-A W MoSi

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si	Mo
0.1	1.2	0.6	0.5

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	604245
2.0	PE Tube	5.0	604269
2.4	PE Tube	5.0	604283
3.0	PE Tube	5.0	604306



# LNT 19

## TOP FEATURES

- Excellent mechanical characteristics.
- Also suitable where some resistance to hydrogen attack by sulphur bearing crude oil is required

## TYPICAL APPLICATIONS

- Oil & Gas
- Thermal Power
- Pressure vessels
- Chemical
- Boilers, plates, tubes steels

## CLASSIFICATION

AWS A5.28 ER80S-G\*  
 EN ISO 21952-A W CrMo1Si  
 \* Nearest classification ER80S-B2

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20 °C
Typical values	I1	PWHT 700°C/1h	540	640	22	250

\* PWHT = Post Weld Heat Treatment

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.0	PE Tube	5.0	604344
2.4	PE Tube	5.0	604368
3.0	PE Tube	5.0	604382

# LNT 20

## TOP FEATURES

- Deposit insensitive to cracking.
- Also suitable for the welding of 1½Cr½Mo steels where improved resistance to hydrogen attack or corrosion by sulphur is required.

## TYPICAL APPLICATIONS

- Oil & Gas
- Thermal Power
- Pressure vessels
- Chemical
- Boilers, plates, tubes steels

## CLASSIFICATION

AWS A5.28 ER90S-G\*  
EN ISO 21952-A W CrMo2Si

\* Nearest classification ER90S-B3

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	I1	PWHT 700°C/1h	560	640	22	140

\* PWHT = Post Weld Heat Treatment

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.0	PE Tube	5.0	600247
2.4	PE Tube	5.0	605563

# LNT 28

## TOP FEATURES

- The addition of Ni and Cu to the weld metal provides increased resistance to atmospheric corrosion compared to conventional C-Mn steels
- Copper percentage help preventing further oxidation of the weld bead
- Excellent mechanical characteristics and resistance to corrosion.

## TYPICAL APPLICATIONS

- Infrastructures
- Weather Resisting Steels

## CLASSIFICATION

AWS A5.28 ER80S-G

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -20°C
Typical values	I1	AW	570	620	26	80

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.4	PE Tube	5.0	606324

TIG

# LNT Ni1

## TOP FEATURES

- The weld metal contains less than 1% Ni conforming to NACE requirements
- Ideal for low temperature applications.

## TYPICAL APPLICATIONS

- Cryogenic Applications
- Pipelaying
- LNG

## CLASSIFICATION

AWS A5.28 ER80S-Ni 1  
EN ISO 636-A W 42 6 3Ni1

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si	Ni
0.1	1.2	0.6	0.9

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	600162
2.0	PE Tube	5.0	605112
2.4	PE Tube	5.0	605136
3.0	PE Tube	5.0	605235

# LNT Ni2.5

## TOP FEATURES

- Excellent mechanical characteristic both when welded and after stress relieving.
- High impact value at low temperature (-60°C as welded and -90°C after stress relieving 15h/580°C)
- Ideal for low temperature applications.

## TYPICAL APPLICATIONS

- Cryogenic Applications
- Pipelaying
- LNG

## CLASSIFICATION

AWS A5.28 ER80S-Ni2  
EN ISO 636-A W 46 6 2Ni2

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si	Ni
0.1	1.1	0.55	2.4

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.4	PE Tube	5.0	600223
3.0	PE Tube	5.0	605211

TIG

# LNT 304L

## TOP FEATURES

- The low carbon content reduces the propensity to intergranular carbide precipitation, which increases the resistance to intergranular corrosion without the use of stabilizers.
- The weld metal provides good corrosion resistance properties to intergranular attack from a range of liquid media at service temperatures up to 300°C.
- Excellent mechanical strength and corrosion resistance.

## TYPICAL APPLICATIONS

- Pipework
- Petrochemical
- Nuclear Power generation

## CLASSIFICATION

AWS A5.9 ER308L  
EN ISO 14343-A W 19 9 L

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-196°C
Typical values	I1	AW	472	692	34	120	91

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.2	PE Tube	5.0	595460
1.6	PE Tube	5.0	595468
2.0	PE Tube	5.0	595470
2.4	PE Tube	5.0	595475
3.2	PE Tube	5.0	595482

# LNT 304LSi

## TOP FEATURES

- The low carbon content reduces the propensity to intergranular carbide precipitation, which increases the resistance to intergranular corrosion without the use of stabilizers.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.
- Better weldability and appearance

## TYPICAL APPLICATIONS

- Pipework
- Plates fabrication
- Shipbuilding

## CLASSIFICATION

AWS A5.9 ER308LSi  
EN ISO 14343-A W 19 9 LSi

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20 °C	-196 °C
Typical values	I1	AW	467	622	37	147	67

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.0	PE Tube	5.0	580174
1.2	PE Tube	5.0	580198
1.6	PE Tube	5.0	582512
2.0	PE Tube	5.0	582796
2.4	PE Tube	5.0	582802
3.2	PE Tube	5.0	583045

# LNT 316L

## TOP FEATURES

- The weld metal has a high resistance to crevice corrosion by oxidising acids.
- Excellent mechanical and chemical characteristics.
- Suitable for welding or hard-facing stainless steels with the same chemical composition

## TYPICAL APPLICATIONS

- Pipework
- Petrochemical
- Nuclear Power generation

## CLASSIFICATION

AWS A5.9 ER316L  
EN ISO 14343-A W 19 12 3 L

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
						+20 °C	-120 °C	-196 °C
Typical values	I1	AW	400	620	35	100	80	40

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.2	PE Tube	5.0	601020
1.6	PE Tube	5.0	582239
2.0	PE Tube	5.0	600807
2.4	PE Tube	5.0	582499
3.2	PE Tube	5.0	582437



# LNT 316LSi

## TOP FEATURES

- The higher Si level results in a smooth weld bead shape and even appearance with excellent toe blending particularly in fillet welds.
- The weld metal has a high resistance to pitting and crevice corrosion by non-oxidising acids.
- Used for applications with service temperatures <400°C.

## TYPICAL APPLICATIONS

- Pipework
- Plates fabrication
- Shipbuilding

## CLASSIFICATION

AWS A5.9 ER316LSi  
EN ISO 14343-A W 19 12 3 LSi

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

DNV	TÜV	DB	CE
+	+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-196°C
Typical values	I1	AW	484	624	32	100	82

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.0	PE Tube	5.0	580259
1.2	PE Tube	5.0	580235
1.6	PE Tube	5.0	583915
2.0	PE Tube	5.0	583922
2.4	PE Tube	5.0	582819
3.2	PE Tube	5.0	583571

# LNT 309L

## TOP FEATURES

- The weld metal has a delta-ferrite content of ~12% resulting in a high resistance to hot cracking.
- Also used for the welding of clad steels where service temperatures are below 300 °C.
- 300 °C maximum operating temperature.

## TYPICAL APPLICATIONS

- Pipework
- Petrochemical
- Nuclear Power generation

## CLASSIFICATION

AWS A5.9 ER309L  
EN ISO 14343-A W 23 12 L

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)
Typical values	I1	AW	390	600	35

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	582240
2.0	PE Tube	5.0	582242
2.4	PE Tube	5.0	582245

# LNT 309LSi

## TOP FEATURES

- Also used for the welding of clad steels where service temperatures are below 300 °C.
- The weld metal has a delta-ferrite content of ~12% resulting in a high resistance to hot cracking.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

## TYPICAL APPLICATIONS

- General fabrication
- Cladding

## CLASSIFICATION

AWS A5.9 ER309LSi  
EN ISO 14343-A W 23 12 LSi

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

DNV	TÜV	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -120 °C
Typical values	I1	AW	400	600	35	65

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.2	PE Tube	5.0	606008
1.6	PE Tube	5.0	604405
2.0	PE Tube	5.0	604566
2.4	PE Tube	5.0	604641
3.2	PE Tube	5.0	604665

# LNT 347Si

## TOP FEATURES

- The weld metal has a high resistance to corrosive media at service temperatures <400°C.
- The presence of niobium reduces the propensity of intergranular chromium carbide precipitation and thus reduces the susceptibility to intergranular corrosion.
- The increased silicon content results in increased weld pool fluidity to give a smooth deposit appearance.

## TYPICAL APPLICATIONS

- Process Industries
- High Temperature Stainless Applications

## CLASSIFICATION

AWS A5.9 ER347Si  
EN ISO 14343-A W 19 9 Nb Si

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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 (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)	
						+20°C	-196°C
Typical values	I1	AW	400	650	35	80	45

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	600664
2.0	PE Tube	5.0	600671
2.4	PE Tube	5.0	600678

# LNT 310

## TOP FEATURES

- High temperature ductility and excellent resistance to oxidation at working temperatures <1000°C.
- The weld deposit is fully austenitic
- Excellent corrosion resistance even when hot.

## TYPICAL APPLICATIONS

- Heat Exchangers
- Hot water boilers
- Fabrication of furnaces

## CLASSIFICATION

AWS A5.9 ER310  
EN ISO 14343-A W 25 20

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

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*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
Typical values	I1	AW	360	600	35	100

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	5.0	604773
2.0	PE Tube	5.0	604790
2.4	PE Tube	5.0	604797

TIG

# LNT 4455

## TOP FEATURES

- TIG rod for welding fully austenitic CrNiMnMo stainless steels and low temperature steels
- Not susceptible for hot cracking

## TYPICAL APPLICATIONS

- Non-magnetic applications
- Cryogenic Applications
- LNG

## CLASSIFICATION

AWS A5.9 ER316Mn  
EN ISO 14343-A W 20 16 3 MnL

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

C	Mn	Si	Cr	Ni	Mo	N
0.015	7.0	0.4	20	16	3.0	0.15

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -196°C
Typical values	I1	AW	430	650	35	75

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.0	PE Tube	5.0	600581

# LNT CuSi3

## TOP FEATURES

- This wire is frequently used for joining in artistic foundries, for welding galvanized sheets and even as a steel cladding.
- It is also suitable for surfaces subject to corrosion.

## TYPICAL APPLICATIONS

- Cladding
- Brazing
- Automotive

## CLASSIFICATION

AWS A5.7      ERCuSi-A  
EN ISO 24373-A    S Cu 6560 (CuSi3Mn1)

## SHIELDING GASES (ACC. EN ISO 14175)

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

## APPROVALS

CE

+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Cu	Sn	Mn	Si	Zn
bal.	0.1	1.0	3.0	0.1

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	PE Tube	2.5	604694
2.0	PE Tube	2.5	604698
2.4	PE Tube	2.5	604721

TIG

# LNT CuSn6

## TOP FEATURES

- Good electrical conductivity
- Excellent corrosion resistance

## TYPICAL APPLICATIONS

- Copper Tin Alloys

## CLASSIFICATION

AWS A5.7      ERCuSn-A  
EN ISO 24373-A      S Cu 5180 (CuSn6P)

## SHIELDING GASES (ACC. EN ISO 14175)

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

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Cu	Sn	P
bal.	6.0	0.2

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Hardness (HB)	Impact ISO-V (J) +20°C
Typical values	I1	AW	150	260	20	75	80

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.0	PE Tube	2.5	605022
2.4	PE Tube	2.5	605039



# SuperGlaze® TIG 4043

## TOP FEATURES

- Use on many weldable cast and wrought aluminium alloys
- Generally recommended for welding 5052, any 6XXX series alloys and castings
- Alloy embossed on each rod for easy identification

## TYPICAL APPLICATIONS

- Bicycle frames
- Pressure vessels

## CLASSIFICATION

AWS A5.10 R4043  
EN ISO 18273-A S Al 4043A (AlSi5)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Al	Si	Fe	Cu	Mn	Mg	Zn	Ti	Be
bal.	5.01	0.13	0.008	0.009	0.03	0.002	0.007	0.0002

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
Typical values	I1	AW	20-40	120-165	3-18

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	CARTON BOX	4.5	ED031111
	CARTON BOX	5.0	ED701957
2.0	CARTON BOX	5.0	ED702537
2.4	CARTON BOX	5.0	ED701958
3.2	CARTON BOX	5.0	ED701959, ED703877

# SuperGlaze® TIG 5183

## TOP FEATURES

- Designed for applications where higher strength is required
- For 5083 and 5456 base materials
- Excellent corrosion resistance ideal for Ship building and marine applications

## TYPICAL APPLICATIONS

- Marine
- Shipbuilding
- Cryogenic tanks
- Bicycle frames
- Railway Industry

## CLASSIFICATION

AWS A5.10 R5183  
EN ISO 18273-A S Al 5183 (AlMg4.5Mn0.7(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.03	0.13	0.001	0.65	4.99	0.10	0.02	0.07	0.0002

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	CARTON BOX	5.0	ED701963
2.0	CARTON BOX	5.0	ED702566
2.4	CARTON BOX	4.5	ED034193
	CARTON BOX	5.0	ED701965
3.2	CARTON BOX	5.0	ED701964, ED703829
4.0	CARTON BOX	5.0	ED702517, ED703866

# SuperGlaze® TIG 5356

## TOP FEATURES

- Aluminium-magnesium alloy for use on many weldable cast and wrought aluminium alloys
- Excellent for color matching after anodizing
- Alloy embossed on each rod for easy identification
- General purpose filler alloy for 5XXX and 6XXX series alloys
- High strength filler metal

## TYPICAL APPLICATIONS

- Architectural structures
- Armoured vehicles
- Gun mount bases

## CLASSIFICATION

AWS A5.10 R5356  
EN ISO 18273-A S Al 5356 (AlMg5Cr(A))

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	DB	CE
+	+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
bal.	0.06	0.09	0.02	0.12	4.84	0.12	0.001	0.09	0.0002

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)
Typical values	I1	AW	110-120	240-296	17-26

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	CARTON BOX	4.5	ED031108
	CARTON BOX	5.0	ED701966
2.0	CARTON BOX	5.0	ED702518
2.4	CARTON BOX	5.0	ED702387
3.2	CARTON BOX	4.5	ED031110
	CARTON BOX	5.0	ED701967

# SuperGlaze® TIG 5754

## TOP FEATURES

- 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

## TYPICAL APPLICATIONS

- General Construction
- Structural Industry

## CLASSIFICATION

AWS A5.10 R5754  
EN ISO 18273-A S Al 5754 (AlMg3)

## SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)  
I3 Inert gas Ar+ 0.5-95% He  
Flow rate 14.2-23.6 l/min

## APPROVALS

TÜV	CE
+	+

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

Al	Si	Fe	Cu	Mn	Mg	Cr	Ti	Be
bal.	0.07	0.13	0.01	0.29	3.0	0.06	0.05	0.0004

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

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

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

\* AW = As welded

## PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
1.6	CARTON BOX	5.0	ED703743