

Overview classification welding consumables

- Material-, ASME A- & F-Number and EN FM groups -¹

SMAW (111) MMAW	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Covered Electrodes for Mild and Fine Grained Steel (process 111)						
Fleetweld 5P+	ISO 2560-A: E 42 3 C 2 5	AWS A5.1: E6010	-	1	3	1
Supra	ISO 2560-A: E 38 0 RC 1 1	AWS A5.1: E6012	-	1	2	1
Panta	ISO 2560-A: E 42 0 RC 1 1	AWS A5.1: E6013	-	1	2	1
Pantafix	ISO 2560-A: E 38 0 RC 1 1	AWS A5.1: E6013	-	1	2	1
Omnia	ISO 2560-A: E 42 0 RC 1 1	AWS A5.1: E6013	-	1	2	1
Omnia 46	ISO 2560-A: E 38 0 R 1 1	AWS A5.1: E6013	-	1	2	1
Cumulo	ISO 2560-A: E 38 0 R 1 2	AWS A5.1: E6013	-	1	2	1
Universalis	ISO 2560-A: E 42 0 RR 1 2	AWS A5.1: E6013	-	1	2	1
Ferrod 165A	ISO 2560-A: E 42 2 RA 7 3	AWS A5.1: E7024-1	-	1	1	1
Ferrod 135T	ISO 2560-A: E 38 0 RR 5 3	AWS A5.1: E7024	-	1	1	1
Ferrod 160T	ISO 2560-A: E 42 0 RR 7 3	AWS A5.1: E7024	-	1	1	1
Gonia 180	ISO 2560-A: E 42 0 RR 7 3	AWS A5.1: E7024	-	1	1	1
Basic One	ISO 2560-A: E 42 4 B 4 2 H5	AWS A5.1: E7018 H8	-	1	4	1
Baso 48SP	ISO 2560-A: E 46 3 B 3 2 H10 Also complies with E 46 3 BR 3 2 H10	AWS A5.1: E7018-1 H8	-	1	4	1
Baso 49	ISO 2560-A: E 46 3 B 3 2 H5	AWS A5.1: E7018 H4	-	1	4	1
Baso 51P	ISO 2560-A: E 46 3 B 3 2	AWS A5.1: E7018-1	-	1	4	1
Baso 100	ISO 2560-A: E 42 3 B 1 2 H5	AWS A5.1: E7016 H4R	-	1	4	1
Baso 120	ISO 2560-A: E 42 3 B 3 2 H5	AWS A5.1: E7018 H4R	-	1	4	1
Baso G	ISO 2560-A: E 42 5 B 3 2 H5	AWS A5.1: E7018-1 H4R	-	1	4	1
Baso 26V	ISO 2560-A: E 42 3 B 1 5 H10	AWS A5.1: E7048 H8	-	1	4	1
Conarc One	ISO 2560-A: E 42 5 B 3 2 H5	AWS A5.1: E7018-1 H4R	-	1	4	1
Conarc 48	ISO 2560-A: E 46 4 B 4 2 H5	AWS A5.1: E7018-1 H4R	-	1	4	1
Conarc 49	ISO 2560-A: E 46 3 B 4 2 H5	AWS A5.1: E7018 H4	-	1	4	1
Conarc 49C	ISO 2560-A: E 46 4 B 3 2 H5	AWS A5.1: E7018-1 H4R	-	1	4	1
Conarc 51	ISO 2560-A: E 42 4 B 1 2 H5	AWS A5.1: E7016-1 H4R	-	1	4	1
Conarc 52	ISO 2560-A: E 42 2 B 1 2 H5	AWS A5.1: E7016	-	1	4	1
Conarc 53	ISO 2560-A: E 42 5 B 1 2 H5	AWS A5.1: E7016-1	-	1	4	1
Lincoln 7018-1	ISO 2560-A: E 46 4 B 3 2 H5	AWS A5.1: E7018-1	-	1	4	1
Conarc L150	ISO 2560-A: E 42 2 B 5 3 H5	AWS A5.1: E7028 H4R	-	1	1	1
Conarc V180	ISO 2560-A: E 42 4 B 7 3 H5	AWS A5.1: E7028 H4R	-	1	1	1
Conarc V250	ISO 2560-A: E 42 4 B 7 3 H5	AWS A5.1: E7028 H4R	-	1	1	1
Kardo	ISO 2560-A: E 35 2 B 3 2 H5	AWS A5.1: E6018	-	1	4	1
Covered Electrodes for Low Alloyed Steel (High Strength, Low Temperature and Creep Resistant) (111)						
Shield Arc HYP+	ISO 2560-A: E 42 2 Mo C 2 5*	AWS A5.5: E7010-P1	-	1	3	1
Shield Arc 70+	ISO 2560-A: E 46 4 1Ni C 2 5	AWS A5.5: E8010-G	-	10	3	2
Shield Arc 8P+	ISO 2560-A: E 46 4 1Ni C 2 5	AWS A5.5: E8010-P1	-	10	3	2
Conarc 55CT	ISO 2560-A: E 46 5 Mn1Ni B 3 2 H5*	AWS A5.5: E8018-W2 H4R*	-	10	4	2
Conarc 60G	ISO 18275-A: E 55 4 Z B 3 2 H5	AWS A5.5: E9018M H4	-	10	4	2
Conarc 70G	ISO 18275-A: E 55 4 1NiMo B 3 2 H5	AWS A5.5: E9018-G H4R	-	10	4	2
Conarc 74	ISO 2560-A: E 50 6 Mn1Ni B 3 2 H5	AWS A5.5: E8018-G H4R	-	10	4	2
Conarc 80	ISO 18275-A: E 69 5 Z B 3 2 H5	AWS A5.5: E11018M H4	-	10	4	2
Conarc 85	18275-A: E 69 5 Mn2NiCrMo B 3 2 H5	AWS A5.5: E12018-G H4R	-	12	4	2
Kryo 1	ISO 2560-A: E 50 6 Mn1Ni B 3 2 H5	AWS A5.5: E7018-G H4R	-	10	4	2
Kryo 1N	ISO 2560-A: E 50 6 Mn1Ni B 1 2 H5	AWS A5.5: E8016-G H4R	-	10	4	2
Kryo 1P	ISO 2560-A: E 50 6 Mn1Ni B 3 2 H5	AWS A5.5: E8018-G-H4R	-	10	4	2
Kryo 1R	ISO 2560-A: E 46 6 1Ni B 3 2 H5	AWS A5.5: E8018-C3 H4R	-	10	4	1 / 2
Kryo 1-180	ISO 2560-A: E 50 5 1Ni B 7 3 H5	AWS A5.5: E8018-G H4R	-	10	4	2
Kryo 2	ISO 18275-A: E 55 6 Z B 3 2 H5	AWS A5.5: E9018-G H4R	-	10	4	2
Kryo 3	ISO 2560-A: E 46 8 3Ni B 3 2 H5	AWS A5.5: E8018-C1 H4	-	10	4	1
Kryo 4	ISO 2560-A: E 38 8 3Ni B 3 2 H5	AWS A5.5: E7016-C2L H4R	-	10	4	1

* Nearest classification or A- & F-Number

¹ See page 3 for description

SMAW (111) MMAW	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Covered Electrodes for Low Alloyed Steel (High Strength, Low Temperature and Creep Resistant) (111)						
SL 12G	ISO 3580-A: E Mo B 3 2 H5	AWS A5.5: E7018-A1 H4R	-	2	4	1 / 3
SL 19G	ISO 3580-A: E CrMo1 B 3 2 H5	AWS A5.5: E8018-B2 H4	-	3	4	3
SL 19G (STC)	ISO 3580-A: E CrMo1 B 3 2 H5	AWS A5.5: E8018-B2 H4	-	3	4	3
SL 20G	ISO 3580-A: E CrMo2 B 3 2 H5	AWS A5.5: E9018-B3 H4	-	4	4	3
SL 20G (STC)	ISO 3580-A: E CrMo2 B 3 2 H5	AWS A5.5: E9018-B3 H4	-	4	4	3
SL 22G	ISO 3580-A: E Z B 3 2 H5	AWS A5.5: E8018-B1 H4	-	3	4	3
SL 502	ISO 3580-A: E CrMo5 B 3 2 H5	AWS A5.5: E8018-B6 H4R	-	4	4	4
SL 9Cr(P91)	ISO 3580-A: E CrMo91 B 3 2 H5	AWS A5.5: E9016-B9 H4	-	5	4	4
Covered Electrodes for Stainless and Heat Resistant Steel (process 111)						
Arosta 304L	ISO 3581-A: E 19 9 L R 1 2	AWS A5.4: E308L-16	1.4316	8	5	5
Limarosta 304L	ISO 3581-A: E 19 9 L R 1 2	AWS A5.4: E308L-17	1.4316	8	5	5
Vertarosta 304L	ISO 3581-A: E 19 9 L R 2 1	AWS A5.4: E308L-15	1.4316	8	5	5
Jungo 304L	ISO 3581-A: E 19 9 L B 2 2	AWS A5.4: E308L-15	1.4316	8	5	5
Arosta 304H	ISO 3581-A: E 19 9 H R 1 2	AWS A5.4: E308H-16	1.4948*	8	5	5
Arosta 347	ISO 3581-A: E 19 9 Nb R 1 2	AWS A5.4: E347-16	1.4551	8	5	5
Limarosta 347	ISO 3581-A: E 19 9 Nb R 1 2	AWS A5.4: E347-17	1.4551	8	5	5
Jungo 347	ISO 3581-A: E 19 9 Nb B 2 2	AWS A5.4: E347-15	1.4551	8	5	5
Arosta 316L	ISO 3581-A: E 19 12 3 L R 1 2	AWS A5.4: E316L-16	1.4430	8	5	5
Arosta 316LP	ISO 3581-A: E 19 12 3 L R 1 2	AWS A5.4: E316L-16	1.4430	8	5	5
Limarosta 316L	ISO 3581-A: E 19 12 3 L R 1 2	AWS A5.4: E316L-17	1.4430	8	5	5
Vertarosta 316L	ISO 3581-A: E 19 12 3 L R 2 1	AWS A5.4: E316L-15	1.4430	8	5	5
Jungo 316L	ISO 3581-A: E 19 12 3 L B 2 2	AWS A5.4: E316L-15	1.4430	8	5	5
Limarosta 316L-130	ISO 3581-A: E 19 12 3 L R 5 3	AWS A5.4: E316L-17	1.4430	8	5	5
Arosta 318	ISO 3581-A: E 19 12 3 Nb R 1 2	AWS A5.4: E318-16	1.4576	8	5	5
Jungo 318	ISO 3581-A: E 19 12 3 Nb B 2 2	AWS A5.4: E318-15*	1.4576	8	5	5
Arosta 4439	ISO 3581-A: E 18 16 5 N L R 3 2	-	1.4440	9	5	5
Jungo 4455	ISO 3581-A: E 20 16 3 Mn N L B 2 2	AWS A5.4: E316LMn-15	1.4455	9*	5	5
Jungo 4465	ISO 3581-A: E 25 22 2 N L B 2 2*	AWS A5.4: E310Mo-15*	1.4465*	9	5	5
Jungo 4500	ISO 3581-A: E 20 25 5 Cu N L R 1 2	AWS A5.4: E385-16*	1.4519	9	5	5
Arosta 4462	ISO 3581-A: E 22 9 3 N L R 3 2	AWS A5.4: E2209-16*	1.4462*	8	5	5
Jungo 4462	ISO 3581-A: E 22 9 3 N L B 2 2	AWS A5.4: E2209-15	1.4462*	8	5	5
Jungo Zeron 100X	ISO 3581-A: E 25 9 4 N L B 4 2	AWS A5.4: E2595-15	-	8	5*	5
Arosta 309S	ISO 3581-A: E 23 12 L R 3 2	AWS A5.4: E309L-16	1.4332	8	5	5
Limarosta 309S	ISO 3581-A: E 23 12 L R 3 2	AWS A5.4: E309L-17	1.4332	8	5	5
Jungo 309L	ISO 3581-A: E 23 12 L B 2 2	AWS A5.5: E309L-15	1.4332	8	5	5
Arosta 309H	ISO 3581-A: E 22 12 R 3 2*	AWS A5.4: E309H-16	1.4829	8	5	5
Arosta 309Nb	ISO 3581-A: E 23 12 Nb R 3 2	AWS A5.4: E309Cb-16*	1.4556	8	5	5
Arosta 309Mo	ISO 3581-A: E 23 12 2 L R 3 2	AWS A5.4: E309LMo-16	1.4459	8	5	5
Limarosta 309Mo	ISO 3581-A: E 23 12 2 L R 3 2	AWS A5.4: E309LMo-17	1.4459	8	5	5
Nichroma	ISO 3581-A: E 20 10 3 L R 3 2	AWS A5.4: E308LMo-16	1.4431*	8	5	5
Jungo 308LMo	ISO 3581-A: E 20 10 3 B 4 2	-	1.4441*	8	5	5
Nichroma 160	ISO 3581-A: E 23 12 2 L R 5 3*	AWS A5.4: E309Mo-26	1.4459	8	5	5
Arosta 329	ISO 3581-A: E 25 4 R 1 2*	-	1.4820	-	5*	5
Limarosta 312	ISO 3581-A: E 29 9 R 1 2	AWS A5.4: E312-17	1.4337	8	5	5
Arosta 307	ISO 3581-A: E 18 8 Mn R 1 2	AWS A5.4: E307-16*	1.4370	8*	5	5
Arosta 307-160	ISO 3581-A: E 18 8 Mn R 5 3	AWS A5.4: E307-26*	1.4370	8*	5	5
Jungo 307	ISO 3581-A: E 18 8 Mn B 2 2	AWS A5.4: E307-15*	1.4370	8*	5	5
Intherma 310	ISO 3581-A: E 25 20 R 1 2	AWS A5.4: E310-16	1.4842	9	5	5
Intherma 310B	ISO 3581-A: E 25 20 B 1 2	AWS A5.4: E310-15*	1.4842	9	5	5
Covered Electrodes Nickel Based (process 111)						
NiCro 31/27	ISO 3581-A: E 27 31 4 Cu L R 1 2	AWS A5.4: E383-16	1.4563*	9	5	5
NiCro 60/20	ISO 14172: ENi6625 (NiCr22Mo9Nb)	AWS A5.11: ENiCrMo-3	2.4621	-	43	6
NiCro 70/15	ISO 14172: ENi6182* (NiCr15Fe6Mn)	AWS A5.11: ENiCrFe-2*	2.4807	-	43	6
NiCro 70/15Mn	ISO 14172: ENi6182 (NiCr15Fe6Mn)	AWS A5.11: ENiCrFe-3	2.4620	-	43	6
NiCro 70/19	ISO 14172: ENi6082 (NiCr20Mn3Nb)	AWS A5.11: ENiCrFe-2*	2.4648	-	43	6
NiCroMo 60/16	ISO 14172: ENi6276 (NiCr15Mo15Fe6W4)	AWS A5.11: ENiCrMo-4	2.4887	-	43	6
(NiCroMo 59/23)	ISO 14172: ENi6059 (NiCr23Mo16)	AWS A5.11: ENiCrMo-13	2.4609	-	43	6
NiCu 70/30	ISO 14172: ENi4060 (NiCu30Mn3Ti)	AWS A5.11: ENiCu-7	2.4366	-	42	6
Nyloid 2 SRP and 4	ISO 14172: ENi6620 (NiCr14Mo7Fe)	AWS A5.11: ENiCrMo-6	-	-	43	6
Covered Electrodes Copper Based (process 111)						
RepTec Cu8	-	AWS A5.6: ECuMnNiAl	-	-	37	-

* Nearest classification or A- & F-Number

SMAW (111) MMAW	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Covered Electrodes for Aluminium Alloys (process 111)						
Al 99.8	ISO 18273: Al 1080A	AWS A5.3: E1100*	3.0286	-	21	-
AlMn	ISO 18273: Al 3103	AWS A5.3: E3003	3.0516	-	21	-
AlSi5	ISO 18273: Al 4043A*	AWS A5.3: E4043	3.2245	-	23	-
AlSi12	ISO 18273: Al 4047	-	3.2585	-	23*	-
Covered Electrodes for Cast Iron (process 111)						
RepTec Cast 1	ISO 1071: E C Ni-CI	AWS A5.15: ENi-CI	-	-	-	-
RepTec Cast 3	ISO 1071: E C NiFe-CI 1	AWS A5.15: ENiFe-CI	-	-	-	-
RepTec Cast 31	ISO 1071: E C NiFe-CI 1	AWS A5.15: ENiFe-CI	-	-	-	-
Covered Electrodes for Hardfacing Applications (process 111)						
Wearshield BU 30	DIN 8555: E 1-UM-350-GP	EN 14700: E Fe1	1.7339*	-	-	-
Wearshield 34	DIN 8555: E 23-UM-200-CKPTZ	AWS A5.11: ENiCrMo-5*	2.4887*	-	43	-
Wearshield Mangjet (e)	DIN 8555: E 7-UM-200-KP	AWS A5.13: EFeMn-A (EFe9)	-	-	71	-
Wearshield 15CrMn	DIN 8555: E 7-UM-250-KP	EN 14700: E Fe9	-	-	-	-
Wearshield MM 40	DIN 8555: E 1-UM-400-G*	EN 14700: E Fe1	-	-	-	-
Wearshield MM	DIN 8555: E 2-UM-55-G*	EN 14700: E Fe2	-	-	-	-
Wearshield T&D	DIN 8555: E 4-UM-60-SZ	AWS A5.13: EFe6* (EN: E Fe4)	-	-	71	-
Wearshield MI (e)	DIN 8555: E 6-UM-60-GPS	EN 14700: E Fe6	-	-	-	-
Wearshield ABR	DIN 8555: E 10-UM-50-GPZ	EN 14700: E Fe6	-	-	-	-
Wearshield 44	DIN 8555: E 10-UM-45-GPZ	EN 14700: E Fe14	-	-	-	-
Wearshield ME (e)	DIN 8555: E 10-UM-60-GRZ	EN 14700: E Fe14	-	-	-	-
Wearshield 50MC	DIN 8555: E 10-UM-65-GRZ	EN 14700: E Fe16	-	-	-	-
Wearshield 60 (e)	DIN 8555: E 10-UM-60-GR	EN 14700: E Fe15	-	-	-	-
Wearshield 70	DIN 8555: E 10-UM-65-GRZ	EN 14700: E Fe16	-	-	-	-
Wearshield 420	DIN 8555: E 6-UM-55-RZ	EN 14700: E Fe8	-	-	-	-
Arosta 307-160	ISO 3581-A: E 18 8 Mn R 5 3	AWS A5.4: E307-26*	1.4370	8*	5	5

* Nearest classification or A- & F-Number

EN Material Number

The EN Material Number is a numerical system in which the steel types are registered. The steel numbers are allocated by a European Registering Office. These numbers are additional to the EN-Classification.

A-Number according ASME Section IX, QW-442

Applicable only to ferrous metals.

Identification of weld metal chemical composition designated on PQR and WPS

F-Number according ASME Section IX, QW-432

The F-Number grouping of electrodes and welding rods is based essentially on their usability characteristics, which fundamentally determine the ability of welders to make satisfactory welds with a given filler metal. This grouping is made to reduce the number of welding procedure and performance qualifications, where this can logically be done. The grouping does not imply that base metals or filler metals within a group may be indiscriminately substituted for a metal that was used in the qualification test without consideration of the compatibility of the base and filler metals from the standpoint of metallurgical properties, post weld heat treatment design and service requirements, and mechanical properties.

FM - Filler material groups according EN 9606-1 (previously EN 287-1)

Group Welding consumable for welding of:

- FM1 Non-alloy and fine grain steels
- FM2 High strength steels
- FM3 Creep-resisting steels Cr < 3.75%
- FM4 Creep-resisting steels 3.75 ≤ Cr ≤ 12%
- FM5 Stainless and heat-resisting
- FM6 Nickel and nickel alloys

GMAW (135 and 131)	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Solid Wires for Mild and Fine Grained Steel (process 135)						
LNM 25	ISO 14341-A: G 42 4 M21 2Si	AWS A5.18: ER70S-3	1.5112	1	6	1
LNM 26	ISO 14341: G 46 4 M21 / G 42 3 C1 3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
LNM 27	ISO 14341: G 46 5 M21 / G 46 3 C1 4Si1	AWS A5.18: ER70S-6	1.5130	1	6	1
UltraMag	ISO 14341: G 46 4 M21 / G 42 3 C1 3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
UltraMag SG3	ISO 14341: G 46 5 M21 / G 46 3 C1 4Si1	AWS A5.18: ER70S-6	1.5130	1	6	1
SupraMag	ISO 14341: G 46 4 M21 / G 42 3 C1 3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
SupraMag CF	ISO 14341: G 46 4 M21 / G 42 3 C1 3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
SupraMag HD	ISO 14341: G 46 4 M21 / G 42 3 C1 3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
SupraMag Ultra	ISO 14341: G 50 5 M21 / G 46 3 C1 4Si1	AWS A5.18: ER70S-6	1.5130	1	6	1
SupraMag Ultra CF	ISO 14341: G 50 5 M21 / G 46 3 C1 4Si1	AWS A5.18: ER70S-6	1.5130	1	6	1
SupraMag Ultra HD	ISO 14341: G 50 5 M21 / G 46 3 C1 4Si1	AWS A5.18: ER70S-6	1.5130	1	6	1
Solid Wires for Low Alloyed Steel (High Strength, Low Temperature and Creep Resistant) (process 135)						
LNM 28	ISO 16834-A: G Z Mn3Ni1Cu*	AWS A5.28: ER80S-G	-	10	6	2
LNM MoNi	ISO 16834-A: G 62 4 M Mn3NiCrMo	AWS A5.28: ER100S-G	-	12	6	2
LNM MoNiVa	ISO 16834-A: G 69 4 M Mn3Ni1CrMo	AWS A5.28: ER100S-G	-	12	6	2
LNM MoNiCr	ISO 16834-A: G 89 4 M Mn4Ni2CrMo	AWS A5.28: ER120S-G	-	12	6	2
LNM NiMo1	ISO 16834-A: G Z Mn3Ni1Mo	AWS A5.28: ER100S-G	-	10	6	2
LNM Ni1	ISO 14341-A: G 46 5 M G3Ni1	AWS A5.28: ER80S-Ni1	-	10	6	1 / 2
LNM Ni2.5	ISO 14341-A: G 46 6 M G2Ni2	AWS A5.28: ER80S-Ni2	-	10	6	1 / 2
LNM 12	ISO 14341-A: G 46 3 M G2Mo (21952: GMoSi)	AWS A5.28: ER70S-A1	1.5424	2	6	1 / 3
LNM 19	ISO 21952-A: G CrMo1Si	AWS A5.28: ER80S-B2*	1.7339	3	6	3
LNM 20	ISO 21952-A: G CrMo2Si	AWS A5.28: ER90S-B3*	1.7384	4	6	3
LNM 502	ISO 21952-A: G CrMo5Si	AWS A5.28: ER80S-B6	1.7373	4	6	4
LNM 9Cr (P91)	ISO 21952-A: G CrMo91	AWS A5.28: ER90S-B9	-	5	6	4
Solid Wires for Stainless and Heat Resistant Steel (process 135)						
LNM 304LSi	ISO 14343-A: G 19 9 L Si	AWS A5.9: ER308LSi	1.4316	8	6	5
LNM 304L	ISO 14343-A: G 19 9 L	AWS A5.9: ER308L	1.4316	8	6	5
LNM 304H	ISO 14343-A: G 19 9 H	AWS A5.9: ER308H	1.4948*	8	6	5
LNM 347Si	ISO 14343-A: G 19 9 Nb Si	AWS A5.9: ER347Si	1.4551	8	6	5
LNM 316L	ISO 14343-A: G 19 12 3 L	AWS A5.9: ER316L	1.4430	8	6	5
LNM 316LSi	ISO 14343-A: G 19 12 3 L Si	AWS A5.9: ER316LSi	1.4430	8	6	5
LNM 318Si	ISO 14343-A: G 19 12 3 Nb Si	AWS A5.9: ER318*	1.4576	8	6	5
LNM 4439Mn	ISO 14343-A: G 18 16 5 N L*	-	1.4453	9*	6*	5
LNM 4455	ISO 14343-A: G 20 16 3 Mn L	AWS A5.9: ER316LMn	1.4455	9*	6	5
LNM 4465	ISO 14343-A: G 25 22 2 N L	-	1.4465*	9*	6*	5
LNM 4500	ISO 14343-A: G 20 25 5 Cu L	AWS A5.9: ER385	1.4519	9	6	5
LNM 4362	-	-	1.4362*	9	6	5
LNM 4462	ISO 14343-A: G 22 9 3 N L	AWS A5.9: ER2209	1.4462*	8	6	5
LNM 2507	ISO 14343-A: G 25 9 4 N L	AWS A5.9: ER2594	-	8	6	5
LNM Zeron 100X	ISO 14343-A: G 25 9 4 N L	AWS A5.9: ER2594	-	8	6	5
LNM 307	ISO 14343-A: G 18 8 Mn	AWS A5.9: ER307*	1.4370	8	6	5
LNM 309LSi	ISO 14343-A: G 23 12 L Si	AWS A5.9: ER309LSi	1.4332	8	6	5
LNM 309H	ISO 14343-A: (G 23 12 L*)	AWS A5.9: ER309	1.4829	8	6	5
LNM 309LMo	ISO 14343-A: G 23 12 2 L	AWS A5.9: ER309LMo*	1.4459	8	6	5
LNM 310	ISO 14343-A: G 25 20	AWS A5.9: ER310	1.4842	9	6	5
LNM 312	ISO 14343-A: G 29 9	AWS A5.9: ER312	1.4337	8	6	5
LNM 410	ISO 14343-A: G 13	AWS A5.9: ER410	1.4009*	7	6	5
LNM 430LNb	ISO 14343-A: G 18 L Nb / -B: G 430LNb	-	1.4511	7	6*	5
Lincoln MIG 307	ISO 14343-A: G 18 8 Mn	AWS A5.9: ER307*	1.4370	8*	6	5
Lincoln MIG 308LSi	ISO 14343-A: G 19 9 L Si	AWS A5.9: ER308LSi	1.4316	8	6	5
Lincoln MIG 316LSi	ISO 14343-A: G 19 12 3 L Si	AWS A5.9: ER316LSi	1.4430	8	6	5
Lincoln MIG 309LSi	ISO 14343-A: G 23 12 L Si	AWS A5.9: ER309LSi	1.4332	8	6	5
Solid Wires Nickel Based (process 131)						
LNM NiCro 31/27	ISO 14343-A: G 27 31 4 Cu L	AWS A5.9: ER383	1.4563	9	6	5
LNM NiCro 60/20	ISO 18274: S Ni 6625 (NiCr22Mo9Nb)	AWS A5.14: ERNiCrMo-3	2.4831	-	43	6
LNM NiCro 70/19	ISO 18274: S Ni 6082 (NiCr20Mn3Nb)	AWS A5.14: ERNiCr-3	2.4806	-	43	6
(LNM NiCroMo 59/23)	ISO 18274: S Ni 6059 (NiCr23Mo16)	AWS A5.14: ERNiCrMo-13	2.4607	-	43	6
LNM NiCroMo 60/16	ISO 18274: S Ni 6276 (NiCr15Mo16Fe6W4)	AWS A5.14: ERNiCrMo-4	2.4886	-	43	6
LNM NiCu 70/30	ISO 18274: S Ni 4060 (NiCu30Mn3Ti)	AWS A5.14: ERNiCu-7	2.4377	-	42	6
LNM NiTi	ISO 18274: S Ni 2061 (NiTi3)	AWS A5.14: ERNi1	2.4155	-	41	6
LNM NiFe	ISO 1071: S NiFe-CI	AWS A5.15: ERNiFe-CI	2.4560*	-	-	-

* Nearest classification or A- & F-Number

GMAW (135 and 131)	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Solid Wires Copper Based (process 131)						
LNM CuAl8	EN 14640: S Cu 6100 (CuAl8)	AWS A5.7: ERCuAl-A1	2.0921	-	36	-
LNM CuAl5Ni2	-	-	-	-	-	-
LNM CuAl8Ni2	EN 14640: S Cu 6327 (CuAl8Ni2)	-	2.0922	-	37*	-
LNM CuAl8Ni6	EN 14640: S Cu 6328 (CuAl9Ni5)	AWS A5.7: ERCuNiAl	2.0923	-	37	-
LNM CuNi30	EN 14640: S Cu 7158 (CuNi30)	AWS A5.7: ERCuNi	2.0837	-	34	-
LNM CuSi3	EN 14640: S Cu 6560 (CuSi3Mn1)	AWS A5.7: ERCuSi-A	2.1461	-	32	-
LNM CuSn	EN 14640: S Cu 1898 (CuSn1)	AWS A5.7: ERCu	2.1006	-	31	-
LNM CuSn6	EN 14640: S Cu 5180 (CuSn6P)	AWS A5.7: ERCuSn-A	-	-	33	-
LNM CuSn12	EN 14640: S Cu 5410 (CuSn12P)	-	2.1056	-	-	-

Solid Wires for Aluminium Alloys (process 131)						
SuperGlaze MIG 1070	ISO 18273: S Al 1070 (Al99.7)	-	3.0259	-	21	-
SuperGlaze MIG 1100	ISO 18273: S Al 1100 (Al99.0Cu)	AWS A5.10: ER1100	-	-	21	-
SuperGlaze MIG 2319	ISO 18273: S Al 2319 (AlCu6MnZrTi)	AWS A5.10: ER2319	-	-	25	-
SuperGlaze MIG 4043	ISO 18273: S Al 4043A (AlSi5)	AWS A5.10: ER4043	3.2245	-	23	-
SuperGlaze MIG 4047	ISO 18273: S Al 4047 (AlSi12)	AWS A5.10: ER4047	3.2585	-	23	-
SuperGlaze MIG 5087	ISO 18273: S Al 5087 (AlMg4.5MnZr)	-	3.3546	-	22*	-
SuperGlaze MIG 5183	ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))	AWS A5.10: ER5183	3.3548	-	22	-
SuperGlaze MIG 5356	ISO 18273: S Al 5356 (AlMg5Cr(A))	AWS A5.10: ER5356	3.3556	-	22	-
SuperGlaze MIG 5356TM	ISO 18273: S Al 5356 (AlMg5Cr)	-	-	-	22*	-
SuperGlaze MIG 5556	ISO 18273: S Al 5556 (AlMg5Mn1Ti)	AWS A5.10: ER5556	-	-	22	-
SuperGlaze MIG 5556A	ISO 18273: S Al 5556A (AlMg5Mn)	-	-	-	22*	-
SuperGlaze MIG 5754	ISO 18273: S Al 5754 (AlMg3)	-	3.3536	-	22*	-
LNM Al99.5	ISO 18273: S Al 1070	AWS A5.10: ER1100*	3.0259	-	21	-
LNM AlMg2.7Mn	ISO 18273: S Al 5554	AWS A5.10: ER5554	-	-	22	-
LNM AlMg3	ISO 18273: S Al 5754 (AlMg3)	-	3.3536	-	22*	-
LNM AlMg5	ISO 18273: S Al 5356 (AlMg5Cr(A))	AWS A5.10: ER5356	3.3556	-	22	-
LNM AlMg4.5Mn	ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))	AWS A5.10: ER5183	3.3548	-	22	-
LNM AlMg4.5MnZr	ISO 18273: S Al 5087 (AlMg4.5MnZr)	-	3.3546	-	22*	-
LNM AlMg5Mn	ISO 18273: S Al 5556A (AlMg5Mn)	-	-	-	22*	-
LNM AlSi5	ISO 18273: S Al 4043A (AlSi5)	AWS A5.10: ER4043	3.2245	-	23	-
LNM AlSi12	ISO 18273: S Al 4047A (AlSi12)	AWS A5.10: ER4047	3.2585	-	23	-

Solid Wires for Hardfacing (process 135)						
LNM 420 FM	DIN 8555: MSG 6-GZ-60 PS	EN 14700: S Fe8	1.4718	-	-	-
LNM 4M	DIN 8555: MSG 2-GZ-350	EN 14700: S Fe2	1.8405*	-	-	-

Autogenous welding Rods (process 311)						
LNG I	EN 12536: O I	AWS A5.2: R45*	1.0324	1	6	-
LNG II	EN 12536: O II	AWS A5.2: R60*	1.0349	1	6	-
LNG III	EN 12536: O III	AWS A5.2: R60*	1.6215	1	6	-
LNG IV	EN 12536: O IV	AWS A5.2: R65*	1.5425	2	6	-

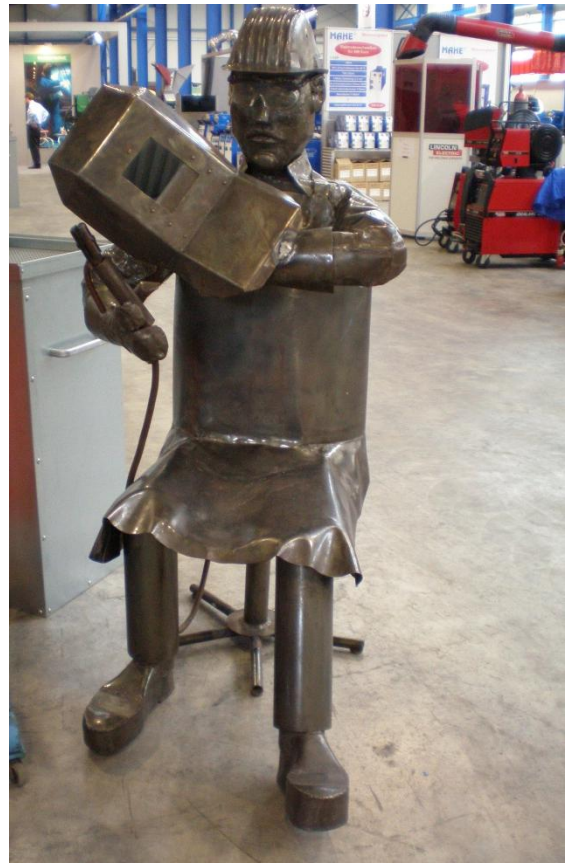
* Nearest classification or A- & F-Number



GTAW (141)	EN or ISO	AWS	Mat. Nr.	A-Nr.	F-Nr.	9606 FM
TIG Welding Rods for Mild and Fine Grained Steel (process 141)						
LNT 25	ISO 636-A: W 42 5 W2Si	AWS A5.18: ER70S-3	1.5112	1	6	1
LNT 26	ISO 636-A: W 42 5 W3Si1	AWS A5.18: ER70S-6	1.5125	1	6	1
TIG Welding Rods for Low Alloyed Steel (High Strength, Low Temperature and Heat Resistant) (141)						
LNT 28	-	AWS A5.28: ER80S-G	-	10	6	2
LNT Ni1	ISO 636-A: W 42 6 W3Ni1	AWS A5.28: ER80S-Ni1	-	10	6	1
LNT Ni2.5	ISO 636-A: W 46 6 W2Ni2	AWS A5.28: ER80S-Ni2	-	10	6	1
LNT NiMo1	ISO 16834-A: W Mn3Ni1Mo	AWS A5.28: ER100S-G	-	2	-	2
LNT 12	ISO 21952-A: W MoSi (ISO 636: W 46 3 W2Mo)	AWS A5.28: ER70S-A1	1.5424	2	6	1 / 3
LNT 19	ISO 21952-A: W CrMo1Si	AWS A5.28: ER80S-B2*	1.7339	3	6	3
LNT 20	ISO 21952-A: W CrMo2Si	AWS A5.28: ER90S-B3*	1.7384	4	6	3
LNT 502LNT 9Cr (P9)	ISO 21952-A: W CrMo5Si*	AWS A5.28: ER80S-B6	1.7373	4	6	4
LNT 9Cr (P91)	ISO 21952-A: W CrMo91	AWS A5.28: ER90S-B9	-	5	6	4
TIG Welding Rods for Stainless and Heat Resistant Steel process 141)						
LNT 304LSi	ISO 14343-A: W 19 9 L Si	AWS A5.9: ER308LSi	1.4316	8	6	5
LNT 304L	ISO 14343-A: W 19 9 L	AWS A5.9: ER308L	1.4316	8	6	5
LNT 304H	ISO 14343-A: W 19 9 H	AWS A5.9: ER308H	1.4948*	8	6	5
LNT 347Si	ISO 14343-A: W 19 9 Nb Si	AWS A5.9: ER347Si	1.4551	8	6	5
LNT 316L	ISO 14343-A: W 19 12 3 L	AWS A5.9: ER316L	1.4430	8	6	5
LNT 316LSi	ISO 14343-A: W 19 12 3 L Si	AWS A5.9: ER316LSi	1.4430	8	6	5
LNT 318Si	ISO 14343-A: W 19 12 3 Nb Si	AWS A5.9: ER318	1.4576	8	6	5
LNT 4439Mn	ISO 14343-A: W 18 16 5 N L*	-	1.4453	9*	-	5
LNT 4455	ISO 14343-A: W 20 16 3 Mn L	AWS A5.9: ER316LMn	1.4455	9*	6	5
LNT 4465	ISO 14343-A: W 25 22 2 N L	-	1.4465*	9*	-	5
LNT 4500	ISO 14343-A: W 20 25 5 Cu L	AWS A5.9: ER385	1.4519	9	6	5
LNT 4462	ISO 14343-A: W 22 9 3 N L	AWS A5.9: ER2209	1.4462*	8	6	5
LNT 2507	ISO 14343-A: W 25 9 4 N L	AWS A5.9: ER2594	-	8	6	5
LNT Zeron 100X	ISO 14343-A: W 25 9 4 N L	AWS A5.9: ER2594	-	8	6	5
LNT 307	ISO 14343-A: W 18 8 Mn	AWS A5.9: ER307*	1.4370	8*	6	5
LNT 309L	ISO 14343-A: W 23 12 L	AWS A5.9: ER309L	1.4332	8	6	5
LNT 309LSi	ISO 14343-A: W 23 12 L Si	AWS A5.9: ER309LSi	1.4332	8	6	5
LNT 309LHF	ISO 14343-A: W 23 12 L	AWS A5.9: ER309L	1.4332	8	6	5
LNT 310	ISO 14343-A: W 25 20	AWS A5.9: ER310	1.4842	9	6	5
LNT 312	ISO 14343-A: W 29 9	AWS A5.9: ER312	-	-	-	5
Lincoln TIG 308L	ISO 14343-A: W 19 9 L	AWS A5.9: ER308L	1.4316	8	6	5
Lincoln TIG 308LSi	ISO 14343-A: W 19 9 L Si	AWS A5.9: ER308LSi	1.4316	8	6	5
Lincoln TIG 316L	ISO 14343-A: W 19 12 3 L	AWS A5.9: ER316L	1.4430	8	6	5
Lincoln TIG 316LSi	ISO 14343-A: W 19 12 3 L Si	AWS A5.9: ER316LSi	1.4430	8	6	5
Lincoln TIG 309L	ISO 14343-A: W 23 12 L	AWS A5.9: ER309L	1.4332	8	6	5
Lincoln TIG 309LSi	ISO 14343-A: W 23 12 L Si	AWS A5.9: ER309LSi	1.4332	8	6	5
TIG Welding Rods Nickel Based (process 141)						
LNT NiCro 31/27	ISO 14343-A: W 27 31 4 Cu L	AWS A5.9 : ER383	1.4563	9	6	5
LNT NiCro 60/20	ISO 18274: S Ni 6625 (NiCr22Mo9Nb)	AWS A5.14: ERNiCrMo-3	2.4831	-	43	6
LNT NiCro 70/19	ISO 18274: S Ni 6082 (NiCr20Mn3Nb)	AWS A5.14: ERNiCr-3	2.4806	-	43	6
LNT NiCroMo 59/23	ISO 18274: S Ni 6059 (NiCr23Mo16)	AWS A5.14: ERNiCrMo-13	2.4607	-	43	6
LNT NiCroMo 60/16	ISO 18274: S Ni 6276 (NiCr15Mo16Fe6W4)	AWS A5.14: ERNiCrMo-4	2.4886	-	43	6
LNT NiCu 70/30	ISO 18274: S Ni 4060 (NiCu30Mn3Ti)	AWS A5.14: ERNiCu-7	2.4377	-	42	6
LNT NiTi	ISO 18274: S Ni 2061 (NiTi3)	AWS A5.14: ERNi1	2.4155	-	41	6
TIG Welding Rods Copper Based (process 141)						
LNT CuAl8	EN 14640: S Cu 6100 (CuAl8)	AWS A5.7: ERCuAl-A1	2.0921	-	36	-
LNT CuNi30	ISO 24373-A: S Cu 7158 (CuNi30)	AWS A5.7: ERCuNi	2.0837	-	34	-
LNT CuSn6	EN 14640: S Cu 5180 (CuSn6P)	AWS A5.7: ERCuSn-A*	2.1022	-	33	-
LNT CuSi3	EN 14640: S Cu 6560 (CuSi3Mn1)	AWS A5.7: ERCuSi-A	2.1461	-	32	-
TIG Welding Rods for Aluminium Alloys (process 141)						
SuperGlaze TIG 1070	ISO 18273: S Al 1070 (Al99.7)	-	3.0259	-	21*	-
SuperGlaze TIG 1100	ISO 18273: S Al 1100 (Al99.0Cu)	AWS A5.10: R1100	-	-	21*	-
SuperGlaze TIG 2319	ISO 18273: S Al 2319 (AlCuMn6ZrTi)	AWS A5.10: R2319	-	-	25	-
SuperGlaze TIG 4043	ISO 18273: S Al 4043A (AlSi5)	AWS A5.10: R4043	3.2245	-	23	-
SuperGlaze TIG 4047	ISO 18273: S Al 4047 (AlSi12)	AWS A5.10: R4047	3.2585	-	23	-
SuperGlaze TIG 5087	ISO 18273: S Al 5087 (AlMg4.5MnZr)	-	3.3546	-	22*	-
SuperGlaze TIG 5183	ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))	AWS A5.10: R5183	3.3548	-	22	-
SuperGlaze TIG 5356	ISO 18273: S Al 5356 (AlMg5Cr(A))	AWS A5.10: R5356	3.3556	-	22	-
SuperGlaze TIG 5556	ISO 18273: S Al 5556 (AlMg5Mn1Ti)	AWS A5.10: R5556	-	-	22	-
SuperGlaze TIG 5556A	ISO 18273: S Al 5556A (AlMg5Mn)	-	-	-	22*	-

SuperGlaze TIG 5754	ISO 18273: S Al 5754 (AlMg3)	-	3.3536	-	22*	-
LNT Al99.5	ISO 18273: S Al 1070	AWS A5.10: R1100*	3.0259	-	21	-
LNT AlMg2.7Mn	ISO 18273: S Al 5554	AWS A5.10: R5554	-	-	22	-
LNT AlMg3	ISO 18273: S Al 5754 (AlMg3)	-	3.3536	-	22*	-
LNT AlMg5	ISO 18273: S Al 5356 (AlMg5Cr(A))	AWS A5.10: R5356	3.3556	-	22	-
LNT AlMg4.5Mn	ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))	AWS A5.10: R5183	3.3548	-	22	-
LNT AlMg4.5MnZr	ISO 18273: S Al 5087 (AlMg4.5MnZr)	-	-	-	22*	-
LNT AlSi5	ISO 18273: S Al 4043A (AlSi5)	AWS A5.10: R4043	3.2245	-	23	-
LNT AlSi12	ISO 18273: S Al 4047A (AlSi12)	AWS A5.10: R4047	3.2585	-	23	-

* Nearest classification or A- & F-Number



Flux Cored Wires (136 + 138 + 114)	EN or ISO xxxxx-A	AWS	Mat Nr.	A- Nr.	F- Nr.	9606 FM
OUTERSHIELD[®] - Gas Shielded Flux Cored Wires for Mild, Fine Grained and Low Alloyed Steel (136 / 138)						
Outershield 70	17632-A: T 46 0 R C 3 17632-A: T 46 0 R M 3	AWS A5.20: E70T-9C AWS A5.20: E70T-9M	-	1	6	1
Outershield 70-H	17632-A: T 46 0 R C 3 H5 17632-A: T 46 0 R M 3 H5	AWS A5.20: E70T-1C-H4 AWS A5.20: E70T-1M-H4	-	1	6	1
Outershield 70E-H	17632-A: T 46 3 R C 3 H5 17632-A: T 46 3 R M 3 H5	AWS A5.20: E70T-1C-JH4 AWS A5.20: E70T-1M-JH4	-	1	6	1
Outershield 71C	17632-A: T 46 3 P C 1 H10	AWS A5.20: E71T-1C/-9C-H8	-	1	6	1
Outershield 71E	17632-A: T 46 3 P M 1 H10	AWS A5.20: E71T-1M-JH8	-	1	6	1
Outershield 71E-H	17632-A: T 46 3 P M 1 H5 17632-A: T 46 0 P C 1 H5	AWS A5.20: E71T-1M-JH4 AWS A5.20: E71T-1C-H4	-	1	6	1
Outershield 71M-H	17632-A: T 46 2 P C 1 H5	AWS A5.20: E71T-1C-JH4	-	1	6	1
Outershield T55-H	17632-A: T 42 4 B C 2 H5 17632-A: T 42 4 B M 2 H5	AWS A5.20: E71T-5C-JH4 AWS A5.20: E71T-5M-JH4	-	1	6	1
Outershield MC700	17632-A: T 46 2 M M 2 H10	AWS A5.18: E70C-6M H8	-	1	6	1
Outershield MC710-H	17632-A: T 46 3 M M 2 H5	AWS A5.18: E70C-6M H4	-	1	6	1
Outershield MC710C-H	17632-A: T 46 3 M C 2 H5	AWS A5.18: E70C-6C H4	-	1	6	1
Outershield MC715-H	17632-A: T 46 4 M M 2 H5	AWS A5.18: E70C-6M H4	-	1	6	1
Outershield MC715Ni1-H	17632-A: T 46 5 1Ni M M 2 H5	AWS A5.28: E80C-Ni1M H4	-	10	6	1
Outershield MC420N-H	17632-A: (T 38 2 Z Z M M 2 H5)	AWS A5.28: (E70C-GM H4)	-	10	6	1
Outershield MC460VD-H	17632-A: T 46 2 M M 1 H5	AWS A5.18: E70C-6M H4	-	1	6	1
Outershield 81Ni1-H	17632-A: T 50 5 1Ni P M 2 H5	AWS A5.29: E81T1-Ni1M-JH4	-	10	6	2
Outershield 81Ni1-HSR	17632-A: T 50 5 1 Ni P M 2 H5 T	AWS A5.29: E81T1-Ni1M-JH4	-	10	6	2
Outershield 81Ni1C-H	17632-A: T 50 4 1Ni P C 2 H5	AWS A5.29: E81T1-Ni1C-JH4	-	10	6	2
Outershield 81K2-H	17632-A: T 50 6 1.5Ni P M 2 H5	AWS A5.29: E81T1-K2M-JH4	-	10	6	2
Outershield 81K2-HSR	17632-A: T 50 6 1.5Ni P M 2 H5 T	AWS A5.29: E81T1-K2M-JH4	-	10	6	2
Outershield 91Ni1-HSR	18276-A: T 55 4 1NiMo P M 2 H5 T	AWS A5.29: E91T1-GM-H4	-	10	6	2
Outershield 91K2-HSR	18276-A: T 55 4 1.5NiMo P M 2 H5	AWS A5.29: E91T1-GM-H4	-	10	6	2
Outershield 101Ni1-HSR	-	AWS A5.29: E101T1-G-H4	-	11*	6	2
Outershield 690-H	18276-A: T 69 4 Z P M 2 H5	AWS A5.29: E111T1-K3M-JH4	-	10	6	2
Outershield 690-HSR	18276-A: T 69 4 Z P M 2 H5 T	AWS A5.29: E111T1-K3M-JH4	-	10	6	2
Outershield 500CT-H	17632-A: T 50 5 Z P M 2 H5	AWS A5.29: E81T1-GM-H4	-	10	6	2
Outershield 555CT-H	17632-B: T555T1-1MA-NCC1-UH5	AWS A5.29: E81T1-W2M-JH4	-	2*	6	2
Outershield MC555CT-H	17632-B: T554T15-OMA-NCC1-UH5	AWS A5.28: E80C-W2 H4	-	2*	6	2
Outershield 12-H	17634-A: T MoL P M 2 H5	AWS A5.29: E81T1-A1M-H4	-	2	6	1 / 3
Outershield 19-H	17634-A: T CrMo1 P M 2 H5	AWS A5.29: E81T1-B2M-H4	-	3	6	3
Outershield 20-H	17634-A: T CrMo2 P M 2 H5	AWS A5.29: E91T1-B3M-H4	-	4	6	3

INNERSHIELD[®] - Self Shielding Flux Cored Wires for Mild, Fine Grained and Low Alloyed Steel (114)						
Innershield NR-152	ISO 17632-A: T 42 Z Z N 5	AWS A5.20: E71T-14	-	1	6	1
Innershield NR-203NiC	-	AWS A5.29: E61T8-K6	-	1	6	1
Innershield NR-203Ni1	ISO 17632-A: T 42 4 1Ni Y N 1 H10	AWS A5.29: E71T8-Ni1	-	10	6	1
Innershield NR-211MP	ISO 17632-A: T 42 Z Z N 1 H10	AWS A5.20: E71T-11	-	1	6	1
Innershield NR-232	ISO 17632-A: T 42 2 Y N 2 H10	AWS A5.20: E71T-8	-	1	6	1
Innershield NR-233	ISO 17632-A: T 42 3 Y N 2 H10	AWS A5.20: E71T-8	-	1	6	1
Innershield NR-207 (-H)	-	AWS A5.29: E71T8-K6	-	10	6	1
Innershield NR-208 (-H)	-	AWS A5.29: E91T8-G	-	1	6	2
Innershield NR-305	ISO 17632-A: T 42 0 W N 3 H15	AWS A5.20: E70T-6	-	1	6	1
Innershield NR-311	-	AWS A5.20: E70T-7	-	1	6	1
Innershield NR-400	ISO 17632-A: T 42 6 1Ni Y N 2 H10	AWS A5.29: E71T8-K6	-	10	6	1
Innershield NR-440Ni2	-	AWS A5.29: E71T8-Ni2-JH8	-	10	6	1
Innershield NS-3M	ISO 17632-A: T 46 Z V N 3	AWS A5.20: E70T-4	-	1	6	1 / 2

Flux Cored Wires (136)	EN or ISO xxxxx-A	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Cor-A-Rosta – Rutile Gas Shielded Flux Cored Wires for Stainless Steel and Nickel alloys (process 136)						
Cor-A-Rosta 304L	ISO 17633: T 19 9 L R C/M 3	AWS A5.22: E308LT0-1/-4	1.4316	8	6	5
Cor-A-Rosta P304L	ISO 17633: T 19 9 L P C/M 2	AWS A5.22: E308LT1-1/-4	1.4316	8	6	5
Cor-A-Rosta 347	ISO 17633: T 19 9 Nb R C/M 3	AWS A5.22: E347T0-1/-4	1.4551	8	6	5
Cor-A-Rosta 316L	ISO 17633: T 19 12 3 L R C/M 3	AWS A5.22: E316LT0-1/-4	1.4430	8	6	5
Cor-A-Rosta P316L	ISO 17633: T 19 12 3 L P C/M 2	AWS A5.22: E316LT1-1/-4	1.4430	8	6	5
Cor-A-Rosta P317L	ISO 17633: T 19 13 4 N L P C/M 2	AWS A5.22: E317LT1-1/-4	-	8	6	5
Cor-A-Rosta 309L	ISO 17633: T 23 12 L R C/M 3	AWS A5.22: E309LT0-1/-4	1.4332	8	6	5
Cor-A-Rosta P309L	ISO 17633: T 23 12 L P C/M 2	AWS A5.22: E309LT1-1/-4	1.4332	8	6	5
Cor-A-Rosta 309MoL	ISO 17633: T 23 12 2 L R C/M 3	AWS A5.22: E309LMoT0-1/-4	-	8	6	5

Cor-A-Rosta P309MoL	ISO 17633: T 23 12 2 L P C/M 2	AWS A5.22: E309LMoT1-1/-4	-	8	6	5
Cor-A-Rosta 4462	ISO 17633: T 22 9 3 N L R M 3	AWS A5.22: E2209T0-1/-4	1.4462*	8	6	5
Cor-A-Rosta P4462	ISO 17633: T 22 9 3 N L P M 2	AWS A5.22: E2209T1-1/-4	1.4462*	8	6	5
NiCro-Cor P60/20	ISO 12153: T Ni 6625 P M 2	AWS A5.34: EniCrMo3T1-4	2.4831	-	-	6

* Nearest classification or A- & F-Number

Flux Cored Wires (114)	DIN	EN	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
LINCORE[®] - Self Shielding Flux Cored Wires for Hardfacing Applications (process 114)						
Lincore 33	DIN 8555: MF1-GF-350-GPS	EN 14700: T Fe1	-	-	-	-
Lincore 40-O	DIN 8555: MF1-GF-400-GPS	EN 14700: T Fe1	-	-	-	-
Lincore 50	DIN 8555: MF6-GF-50-GP	EN 14700: T Fe8	-	-	-	-
Lincore 55	DIN 8555: MF2-GF-55-GP	EN 14700: T Fe2	-	-	-	-
Lincore 60-O	DIN 8555: MF10-GF-60-CG	EN 14700: T Fe15	-	-	-	-
Lincore T&D	DIN 8555: MF4-GF-60-S	EN 14700: T Fe8	-	-	-	-
Lincore 15CrMn	DIN 8555: MF7-GF-250-KP	EN 14700: T Fe9	-	-	-	-
Lincore 420	DIN 8555: MF6-GF-55-CGR	-	-	-	-	-
Lincore M	DIN 8555: MF-GF-45-KP	EN 14700: T Fe9	-	-	-	-
Lincore 30-S	DIN 8555: UP-1-GF-ACS-155-250	-	-	-	-	-
Lincore 102W	-	-	-	-	-	-
Lincore 414N-S	-	-	-	-	-	-

SAW (121) Wire / Flux	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
SA-Wires for Mild and Fine Grained Steel (process 121)						
L-60 (LNS 143)	ISO 14171-A: S1	AWS A5.17: EL12	-	1	6	1
LNS 135	ISO 14171-A: S2	AWS A5.17: EM12	-	1	6	1
L-61 (LNS 129)	ISO 14171-A: S2Si	AWS A5.17: EM12K	-	1	6	1
L-50 M (LNS 133U)	ISO 14171-A: S3Si	AWS A5.17: EH12K	-	1	6	1
SA-Wires for Low Alloyed Steel (High Strength, Low temperature and Creep Resistant) (process 121/125)						
L-70	ISO 14171-A: S2Mo	AWS A5.23: EA1	1.5424	2	6	1 / 3
LNS 140A	ISO 14171-A: S2Mo / 24598-A: S Mo	AWS A5.23: EA2	1.5424	2	6	1 / 3
LNS 140TB	ISO 14171-A: S2MoTiB	AWS A5.17: EA2TiB	-	2	6	1
LNS 141	ISO 14171-A: S3Mo	AWS A5.23: EA4	-	2	6	1 / 3
LNS 133TB	ISO 14171-A: SZ	AWS A5.23: EG	-	-	6	1
LNS 150 (LA92)	ISO 24598-A: S CrMo1	AWS A5.23: EB2	1.7339	3	6	3
LNS 151 (LA93)	ISO 24598-A: S CrMo2	AWS A5.23: EB3	1.7384	4	6	3
LNS 502	ISO 24598-A: S CrMo5	AWS A5.23: EB6	1.7373	4	6	4
LNS 9Cr(P91)	ISO 24598-A: S CrMo91	AWS A5.23: EB9	-	5	6	4
LNS 160	ISO 14171-A: S2Ni1	AWS A5.23: ENi1	-	10	6	1 / 2
LNS 162	ISO 14171-A: S2Ni2	AWS A5.23: ENi2	-	10	6	1 / 2
LNS 163	ISO 14171-A: S2Ni1Cu	AWS A5.23: EG	-	10	6	2
LNS 164	ISO 14171-A: S3Ni1Mo	AWS A5.23: EF3	-	10	6	2
LNS 165	ISO 14171-A: SZ	AWS A5.23: ENi5	-	10	6	2
LNS 167	ISO 14171-A: S2Ni1Mo	AWS A5.23: EF1*	-	10	6	2
LNS 168	ISO 26304-A: S3Ni2.5CrMo	-	-	12	6	2
LA 100	ISO 26304-A: SZ	AWS A5.23: EM2	-	-	6	2
LNS 175	ISO 14171-A: S2Ni3	AWS A5.23: ENi3	-	10	6	1
LNS T55	ISO 14171-A: TZ H5	AWS A5.17: EC1 H4	-	1	6	1 / 2
LNS T690	ISO 14171-A: TZ H5	AWS A5.23: ECM3 H4	-	10	6	2

SAW (121) Wire / Flux	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
SA-Wires for Stainless and heat Resistant Steel (process 121)						
LNS 304L	ISO 14343-A: S 19 9 L	AWS A5.9: ER308L	1.4316	8	6	5
LNS 304H	ISO 14343-A: S 19 9 H	AWS A5.9: ER308H	1.4948*	8	6	5
LNS 309L	ISO 14343-A: S 23 12 L	AWS A5.9: ER309L	1.4332	8	6	5
LNS 309H	ISO 14343-A: S 22 12 H	AWS A5.9: ER309	1.4332*	8	6	5
LNS 309LMo	ISO 14343-A: S 23 12 2 L	-	-	8	6	5
LNS 316L	ISO 14343-A: S 19 12 3 L	AWS A5.9: ER316L	1.4430	8	6	5
LNS 318	ISO 14343-A: S 19 12 3 Nb	AWS A5.9: ER318	1.4576	8	6	5
LNS 329	ISO 14343-A: S 25 4	-	1.4820	-	6*	5
LNS 347	ISO 14343-A: S 19 9 Nb	AWS A5.9: ER347	1.4551	8	6	5
(LNS 4439Mn)	ISO 14343-A: S 18 16 5 N L*	-	1.4453	9*	6*	5

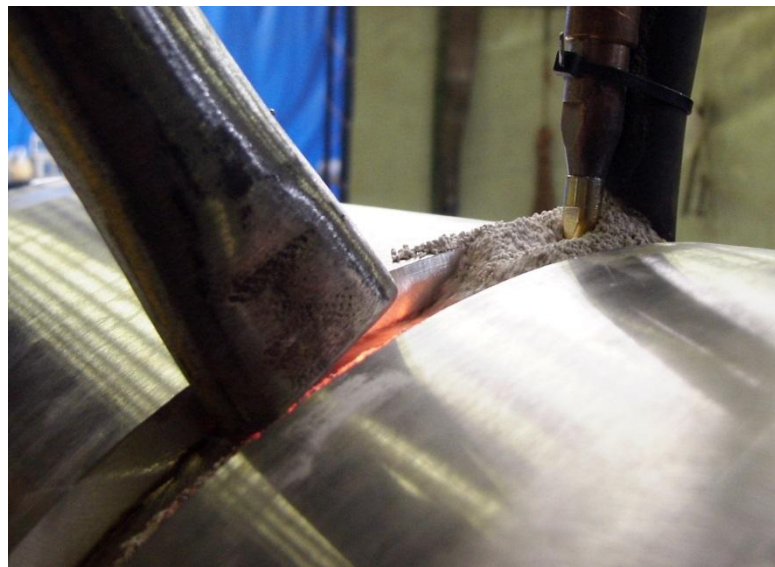
LNS 4455	ISO 14343-A: S 20 16 3 Mn L	AWS A5.9: ER316LMn*	1.4455	9*	6	5
LNS 4462	ISO 14343-A: S 22 9 3 N L	AWS A5.9: ER2209	1.4462*	8	6	5
(LNS 4465)	ISO 14343-A: S 25 22 2 N L	-	1.4465*	9*	6*	5
LNS 4500	ISO 14343-A: S 20 25 5 Cu L	AWS A5.9: ER385	1.4519	9	6	5
LNS Zeron 100X	ISO 14343-A: S 25 9 4 N L	AWS A5.9: ER2594	-	8	6	5
(LNS CrMn 18/7)	ISO 14343-A: S 18 8 Mn	AWS A5.9: ER307*	1.4370	8*	6	5
LNS 307	ISO 14343-A: S 18 8 Mn	AWS A5.9: ER307*	1.4370	8*	6	5

* Nearest classification or A- & F-Number

SA-Wires for Nickel Base Alloys (process 121)

LNS NiCro 60/20	ISO 18274: S Ni 6625 (NiCr22Mo9Nb)	AWS A5.14: ERNiCrMo-3	2.4831	-	43	6
LNS NiCro 70/19	ISO 18274: S Ni 6082 (NiCr20Mn3Nb)	AWS A5.14: ERNiCr-3	2.4806	-	43	6
(LNS NiCroMo 59/23)	ISO 18274: S Ni 6059 (NiCr23Mo16)	AWS A5.14: ERNiCrMo-13	2.4607	-	43	6
LNS NiCroMo 60/16	ISO 18274: S Ni 6276 (NiCr15Mo16Fe6W4)	AWS A5.14: ERNiCrMo-4	2.4886	-	43	6

SAW – Flux (121)	EN or ISO	AWS	Mat. Nr.	A- Nr.	F- Nr.	9606 FM
Flux (process 121)						
FX 761 (-CG)	ISO 14174: S A MS/CS 1 88 AC H5	-	-	-	-	N.A.
FX 780 (-FG / -CG)	ISO 14174: S A AR/AB 1 78 AC H5	-	-	-	-	
FX 781 (-CG)	ISO 14174: S A ZS 1 87 AC H5	-	-	-	-	
FX 782 (-FG)	ISO 14174: S A AR/AB 1 76 AC H5	-	-	-	-	
FX 708GB	ISO 14174: S A AR 1 99 AC H10	-	-	-	-	
FX 802	ISO 14174: S A CS 1 55 DC H5	-	-	-	-	
(Lincolnweld 842-H)	(ISO 14174: S A FB 1 55 AC H5)	-	-	-	-	
FX 8500	ISO 14174: S A FB 1 54 AC H5	-	-	-	-	
FX 860	ISO 14174: S A AB 1 56 AC H5	-	-	-	-	
FX 888	ISO 14174: S A FB 1 66 AC H5	-	-	-	-	
FX 960	ISO 14174: S A AB 1 66 AC H5	-	-	-	-	
FX 980	ISO 14174: S A AR/AB 1 57 AC H5	-	-	-	-	
FX 995N	ISO 14174: S A AB 1 67 AC H5	-	-	-	-	
FX 998N / 998-P	ISO 14174: S A AB 1 67 AC H5	-	-	-	-	
P 223	ISO 14174: S A AB 1 67 AC H5	-	-	-	-	
P 230	ISO 14174: S A AB 1 67 AC H5	-	-	-	-	
P 240	ISO 14174: S A FB 1 55 AC H5	-	-	-	-	
P 2000	ISO 14174: S A AF 2 64 DC H5	-	-	-	-	
P 2007	ISO 14174: S A AF 2 63 AC H5	-	-	-	-	
P 2000S	ISO 14174: S A AF 2 64Cr DC H5	-	-	-	-	
P 7000	ISO 14174: S A AB/AR 2 69 AC H5	-	-	-	-	



PIPELINER [®]	EN or ISO	AWS	Mat. Nr.	A-Nr.	F-Nr.	9606 FM
Covered Electrodes (SMAW - process 111)						
Pipelinier 6P+	ISO 2560-A: E 35 3 C 2 5	AWS A5.1: E6010	-	1	3	1
Pipelinier 7P+	ISO 2560-A: E 42 3 Z C 2 5	AWS A5.1: E7010-P1	-	1	3	1
Pipelinier 8P+	ISO 2560-A: E 46 4 1Ni C 2 5	AWS A5.5: E8010-P1	-	10	3	1
Pipelinier 16P	ISO 2560-A: E 42 3 B 1 2 H5	AWS A5.1: E7016 H4	-	1	4	1
Pipelinier 18P	ISO 2560-A: E 50 6 Mn1Ni B 3 2 H5	AWS A5.5: E8018-G H4R	-	10	4	2
Pipelinier LH-D80	ISO 2560-A: E 46 4 Z B 4 5 H5	AWS A5.5: E8045-P2 H4R	-	1	4	1 / 2
Pipelinier LH-D90	ISO 18275-A: E 55 4 Z B 4 5 H5	AWS A5.5: E9045-P2 H4R	-	10	4	2
Pipelinier LH-D100	-	AWS A5.5: E10045-P2 H4R	-	10	4	2
Solid wires (GMAW – process 135)						
PIPELINER 70S-G	ISO 14341-A: G 38 3 M21 2Si	AWS A5.18: ER70S-G	1.5112	1	6	1
	ISO 14341-A: G 38 3 C1 2Si			1	6	1
Pipelinier 80S-G	ISO 14341-A: G 50 3 M21 4Si	AWS A5.18: ER80S-G	1.5130	1	6	1 / 2
Pipelinier 80Ni1	ISO 14341-A: G 3Ni1	AWS A5.28: ER80S-G	-	1	6	1 / 2
Gas Shielded Flux Cored wires (FCAW – process 136)						
Pipelinier G70M	EN 758: T 46 4 P M 2 H10	AWS A5.20: E71T-1M-JH8	-	1	6	1
		AWS A5.20: E71T-9M-JH8	-	1	6	1
Pipelinier G70M-E	ISO 17632-A: T 50 5 Z P M 2 H5	AWS A5.29: E81T1-GM H4	-	10	6	2
Pipelinier G80M	ISO 18276-A: T 62 3 Z P M 2 H10	AWS A5.29: E101T1-GM H8	-	10	6	2
Pipelinier G80M-E	ISO 18276-A: T 55 4 Z P M 2 H5	AWS A5.29: E91T1-GM H4	-	10	6	2
Pipelinier G90M-E	ISO 18276-A: T 69 4 Z P M 2 H5	AWS A5.29: E111T1-GM H4	-	10	6	2
Self Shielding Flux Cored Wires (FCAW – process 114)						
Pipelinier NR-207+	-	AWS A5.29: E71T8-K6	-	10	6	1 / 2
Pipelinier NR-207XP	-	AWS A5.29: E71T8-K6	-	10	6	1 / 2

* Nearest classification or A- & F-Number

