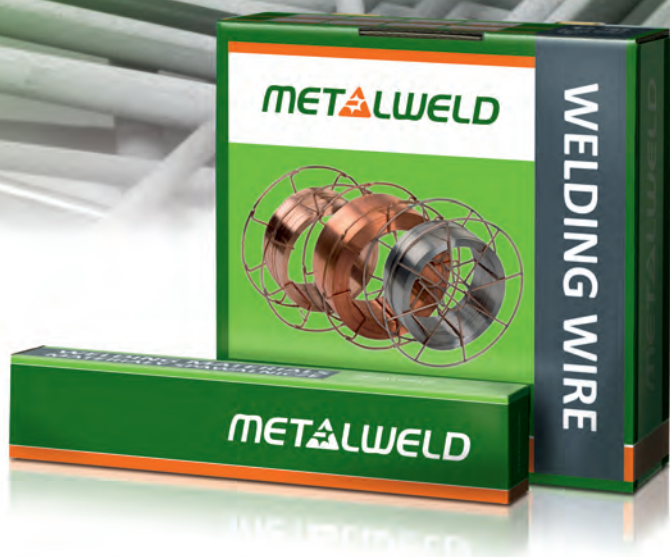


WELDING CONSUMABLES PRODUCT CATALOGUE



V.122013

metalweld



WELDING CONSUMABLES PRODUCT CATALOGUE

v122013

Metalweld Fiprom Polska Spółka z o.o.

ul. Mikołajczyka 57, 41-200 Sosnowiec

Polska • Poland

www.metalweld.pl

export@metalweld.pl

phone: +48 32 263 11 14

phone: +48 32 297 75 50

fax: +48 32 297 75 88



The Metalweld company was established in 1993 in Poland as the independent producer of the welding consumables. Since the beginning our company has developed the range of the welding materials for many industries and applications. For us the products become perfect when the client is completely satisfied with them. That is why each grade you will find in this catalogue is worked out to the last detail.

The quality of METALWELD's welding materials is approved by many classification societies like TÜV, DB, LR, BV, DNV, ABS, RMRS and locally UDT.

We are very flexible. Thanks to our knowledge and experience we can deliver you fully customised solution regarding the technology, private branding, packing and labelling. We are sure that our products will meet your requirements concerning quality, packing standard, time of delivery and good prices.



We would like to invite you to the cooperation with our company as a relevant business partner on the field of the welding consumables.





Die Firma Metalweld war gegründet in 1993 in Polen als ein unabhängiger Hersteller von Schweißtechnik Sortiment. Schon von Anfang an hat unsere Firma das Angebot für viele Industrien und Anwendungen stets erweitert. Unseres Ziel ist ein perfektes Produkt zu herstellen, was nur möglich ist wenn unsere Kunden damit völlig zufrieden sind. Deshalb jedes Produkt in diesem Katalog zu das Einzelne verarbeitet ist.

Die Qualität von Metalweld Schweißtechnik Sortiment ist bewährt bei vielen technischen Überwachungsvereine, wie TÜV, DB, LR, BV, DNV, ABS, RMRS and lokale UDT.

Wir sind sehr flexibel. Dank unseres Wissens und unserer Erfahrung, können wir Ihnen völlig individualisierte Lösungen im Bereich von Technologie, Branding, Verpackung oder Kennzeichnung anbieten. Wir sind sicher, dass unsere Produkte werden Ihre Ansprüche im Bereich von Qualität, Verpackungstandard, Lieferungstermine und gute Preise treffen.



Wir möchten Sie zur Kooperation mit unserer Firma als zuverlässiger Partner im Bereich von Schweißtechnik Sortiment herzlich einladen.





Metalweld fut crée en 1993 comme producteur de matériaux d'apport pour la soudure. Depuis sa création l'entreprise a développé sa propre gamme de produit pour une large application industrielle. Pour Metalweld notre produit est parfait quand le client est totalement satisfait. C'est pourquoi chaque produit que vous trouvez dans cette catalogue est étudié et fabriqué dans le moindre détail.

La qualité de nos matériaux de soudage est attestée par des sociétés de certification comme: TÜV, DB, LR, BV, DNV, ABS, RMRS et localement UDT.

Nous sommes très flexibles. Grâce à notre savoir-faire et expérience nous pouvons vous livrer des solutions pleinement personnalisées concernant technologie, marque privée, emballage et étiquetage. Nous sommes certain que nos produits correspondent à vos besoins en terme de qualité, emballage, temps de livraison et prix.

Nous vous invitons à prendre contact avec nous afin de voir les coopérations possible et peut être dans un proche avenir travailler ensemble.





La società Metalweld è stata fondata nel 1993 in Polonia come produttore indipendente dei materiali d'apporto per la saldatura. Dall'inizio la nostra azienda ha sviluppato la gamma dei materiali di saldatura per molti settori e attrezzature. Per noi i prodotti diventano perfetti quando soddisfano completamente le esigenze dei nostri clienti. Ecco perché ogni oggetto che si trova nel nostro catalogo è elaborato nei minimi dettagli.

La qualità dei materiali di saldatura di METALWELD è garantita da certificazioni internazionali come TÜV, DB, LR, BV, DNV, ABS, RMRS e UDT in Polonia.

Siamo molto flessibili. Grazie al nostro know-how ed alla nostra esperienza siamo in grado di fornirvi soluzioni ritagliate su misura delle vostre necessità per quanto riguarda la tecnologia, prodotti a marchio privato, imballaggio ed etichettatura. Siamo sicuri che i nostri prodotti soddisferanno le vostre esigenze di qualità, standard di imballaggio, tempo di consegna e prezzi.



Vorremmo invitarvi alla collaborazione con la nostra azienda come il vostro partner per materiali d'apporto di saldatura.



PRODUCTION PROGRAMME

Rutile and rutile – cellulosic electrodes for unalloyed and low alloyed steels				
	EN ISO 2560-A	DIN 1913	AWS A-5.1	No
RUTWELD 12	E 38 0 RC 11	E 43 22 R(C)3	E6012/E6013	5
RUTWELD 12 EXTRA	E 38 0 RC 11	E 43 22 R(C)3	E 6013	6
RUTWELD Z	E 42 0 RC 11	E 51 22 RR(C)6	E 6013	7
RUTWELD 1 EXTRA	E 42 0 RC 11	E 51 22 RR(C)6	E 6013	8
RUTWELD 2 EXTRA	E 42 0 RR 12	E 51 22 RR 6	E 6013	9
RUTWELD 13 EXTRA	E 38 0 R 12	-	E 6013	10
RUTWELD X	E 42 0 RR 12	E 51 22 RR 6	E 6013	11
RUTWELD BS	E 38 2 RB 12	E 43 43 RR(B) 7	E 6013	12
RAPID	E 38 2 RA 12	E 43 33 AR 7	E 6020	13
Cellulosic electrodes for unalloyed and low alloyed steels				
	EN ISO 2560-A	-	AWS A-5.1	No
CELWELD 6010	E 42 2 C 21	-	E 6010	14
Basic electrodes for unalloyed and low alloyed steels				
	EN ISO 2560-A	DIN 1913/8529*	AWS A-5.1	No
BASOWELD 50 (EVB 50p)	E 42 4 B 31 H5	E 51 54 B10	E 7018	15
BASOWELD 46 (EVB 46)	E 38 3 B 42	E 51 43 B10	E 7016	16
BASOWELD 55 (EVB 55p)	E 46 6 B 31 H5	EY 42 76 MnB*	E 7018-1	17
BASOWELD S	E 42 2 B(R)12 H10	E 51 43 B(R)10	E 7016	18
BASOWELD 60	E 50 4 Mo B 42	EY5 75Mn1MoB*	E 8018-G	19
BASOWELD NiCu	E 46 5 Z B 32 H5	-	E 8018-G	20
Electrodes for creep resistant steels				
	EN ISO 3580-A	DIN 8575	AWS A-5.5	No
RUTWELD Mo	E Mo R 12	E Mo R 22	E 7013-A1	21
RUTWELD CrMo	E CrMo1 R 12	E CrMo1 R 22	E 8013-B2	22
BASOWELD Mo	E Mo B 42 H5	E Mo B 26	E 7018-A1	23
BASOWELD CrMo	E CrMo1 B 42 H5	E CrMo1 B 26	E 8018-B2	24
BASOWELD 2CrMo	E CrMo2 B 42 H5	E CrMo2 B 20+	E 9018-B3	25
BASOWELD 91CrMo	E CrMo91 B 42 H5	-	E 9018-B9	26
Electrodes for austenitic stainless steels				
	EN ISO 3581-A	DIN 8556	AWS A-5.4	No
INOX 308L	E 19 9 LR 12	E 19 9 LR 26	E 308 L-16	27
INOX 316L	E 19 12 3 LR 12	E 19 12 3 LR 26	E 316 L-16	28
INOX R 347	E 19 9 Nb R 12	E 19 9 Nb R 26	E 347-17	29
INOX B 347	E 19 9 Nb B 22	E 19 9 Nb B 20+	E 347-15	30
INOX R 318	E 19 12 3 Nb R 12	E 19 12 3 Nbr26	E 318-17	31

Electrodes for heat resistant stainless steels				
	EN ISO 3581-A	DIN 8556	AWS A-5.4	No
INOX R 309L	E 23 12 LR 12	E 23 12 LR 26	E 309 L-16	32
INOR R 309 MoL	E 23 12 LR 12	E 23 13 2 LR 26	E 309MoL-17	33
INOX R 310	E 25 20 R 12	E 25 20 R 26	E 310-16	34
INOX B 310	E 25 20 B 42	E 25 20 B 20+	E 310-15	35
Electrodes for special purpose stainless steels				
	EN ISO 3581-A	DIN 8556	AWS A-5.4	No
INOX B 307	E 18 8 Mn B 22	E 18 8 Mn B 20+	E 307-15	36
INOX R 312	E 29 9 R 12	E 29 9 R 26	E 312-16	37
Nickel based electrodes				
	EN ISO 14172	DIN 1736	AWS A 5.11	No
NICROWELD 70/15	E Ni 6182	EL NiCr 15 FeMn	E NiCrFe-3	38
NICROWELD 70/20	E Ni 6082	EL NiCr 19 Nb	E NiCrFe-2	39
NICROWELD 625	E Ni 6625	EL NiCr 20 Mo9Nb	E NiCrMo-3	40
Hardfacing electrodes				
	EN ISO 14700	DIN 8555	-	No
DURWELD 250	E Fe1	E 1-UM-250	-	41
DURWELD 300	E Fe3	E 1-UM-300	-	42
DURWELD 400	E Fe3	E 1-UM-400	-	43
DURWELD 600	E Fe8	E 6-UM-60	-	44
Hardfacing electrodes for hot working tool steels				
	EN ISO 14700	DIN 8555	-	No
UTOPWELD 38	E Fe3	E 3-UM-40-T	-	45
UTOPWELD 55	E Fe4	E 6-UM-60-T	-	46
Hardfacing electrodes, high abrasion resistant				
	EN ISO 14700	DIN 8555	-	No
ABRAWELD 54	E Fe8	E 6-UM-55-G	-	47
ABRAWELD 58	E Fe14	E 10-UM-60-GR	-	48
ABRAWELD 64	E Fe15	E 10-UM-65-GR	-	49
ABRAWELD 66	E Fe16	E 10-UM-65-GRZ	-	50
Cast iron electrodes				
	EN ISO 1071-A	DIN 8573	A-5.15	No
MONEL	E C NiCu B	E NiCu G3	E NiCu-B	51
SUPERWELD Ni	E C Ni-Cl	E Ni BG1	E Ni-Cl	52
CASTWELD NiFeB	E C NiFe-Cl	E NiFe BG1	E NiFe-Cl	53
Electrodes for cutting and gouging				
	-	-	-	No
CUTWELD 2	-	-	-	54

Electrodes for copper and aluminium alloys				
	-	DIN 1733*/1732	AWS A 5.3	No
BRONWELD CuSn	-	E CuSn-7*	E CuSn-A	55
ALU 99,5	-	E Al99,5	E 1100	56
ALU 1Mn	-	E Al1Mn	E 3003	57
ALU Si5	-	E AlSi5	E 4043	58
ALU Si12	-	E AlSi12	E 4047	59
GMAW wires for low alloyed, mild alloyed and high tensile steels				
	EN ISO 14341-A	DIN 8559	AWS A-5.18	No
MIGWELD 2	G 3Si1	SG-2	ER 70 S-6	60
MIGWELD 3	G 4Si1	SG-3	ER 70 S-6	61
	EN ISO 14341-A	-	AWS A-5.28	No
MIGWELD Ni	G3 Ni1	-	ER 80 S-Ni1	62
	EN ISO 14341-A	-	AWS A-5.9	No
MIGWELD NiMo1	G ZMn3Ni1Mo	-	ER 100 S-G	63
MIGWELD 2,5Ni	G 2Ni2	-	ER 90 S-Ni2	64
	EN ISO 16834-A	-	AWS A-5.28	No
MIG 75	G Mn3Ni1CrMo	-	ER 100 S-G	65
	EN ISO 16834-A	-	AWS A-5.9	No
MIGWELD NiCu	G ZMn3Ni1Cu	-	ER 80 S-G	66
MIGWELD 890	G Mn4Ni2CrMo	-	ER 120 S-G	67
	EN ISO 21952-A	DIN 8556	AWS A-5.9	No
MIGWELD Mo	G MoSi	SG Mo	ER 80 S-G	68
MIGWELD CrMo	G CrMo1Si	SG CrMo1	ER 80 S-B2	69
MIGWELD 2CrMo	G CrMo2Si	SG CrMo2	ER 90 S-B2	70
GMAW wires for high alloyed steels				
	EN ISO 14343-A	DIN 8556	AWS A-5.9	No
MIGWELD 308LSi	G 19 9 LSi	SG X5CrNi199	ER 308 LSi	71
MIGWELD 316LSi	G 19 12 3 LSi	SG X2 CrNiMo19123	ER 316 LSi	72
MIGWELD 309LSi	G 23 12 LSi	SG X2CrNi2412	ER 309 LSi	73
MIGWELD 307Si	G 18 8 Mn	SG X15CrNiMn188	ER 307 Si	74
MIGWELD 310	G 25 20	SG X12CrNi2520	ER 310	75
MIGWELD 312	G 29 9	SG X10CrNi309	ER 312	76
GTAW wires for low alloyed, mild alloyed and high tensile steels				
	EN ISO 636-A	DIN 8559	AWS A-5.18	No
TIGWELD 2	W 42 4 W3Si1	W SG2	ER 70 S-6	77
TIGWELD 3	W 46 4 W4Si1	W SG3	ER 70 S-6	78
	EN ISO 21952-A	DIN 8575	AWS A-5.28	No
TIGWELD Mo	W Mo Si	SG Mo	ER 80 S-G	79
TIGWELD CrMo	W CrMo1Si	SG CrMo1	ER 80 S-G	80
TIGWELD 2CrMo	W CrMo2Si	SG CrMo2	ER 90S-G	81

GTAW wire for high alloyed steels				
	EN ISO 14343-A	W. Nr	AWS A-5.9	No
TIGWELD 308LSi	W 19 9 LSi	1.4316	ER 308 LSi	82
TIGWELD 316LSi	W 19 12 3 LSi	1.4430	ER 316 LSi	83
TIGWELD 309LSi	W 23 12 LSi	1.4332	ER 309 LSi	84
TIGWELD 307Si	W 18 8 Mn	1.4370	~ER 307 Si	85
TIGWELD 310	W 25 20	1.4842	ER 310	86
TIGWELD 312	W 29 9	1.4337	ER 312	87
Flux cored wires for low alloyed steels				
	EN ISO 17632-A	AWS A-5.20		No
COREFIL 113R	T 46 2 P C/M 1 H5	E 71 T-1M H4		88
COREFIL 110M	T 46 4 M M 1 H5	E 71 T-1M H4		89
COREFIL 131B	T 42 4 B C/M 3 H5	E 70 T-5 H4		90
Flux cored wires for creep resistant steels				
	EN ISO 17634-A	AWS A-5.29		No
COREFIL MoR	T Mo P M 1 H5	E 81 T1-A1 H4		91
COREFIL MoB	T Mo B M 3 H5	E 80 T5-G H4		92
COREFIL CrMoB	T CrMo1 B M 3 H5	E 80 T5-B2 H4		93
COREFIL 2CrMoB	T CrMo2 B M 3 H5	E 80 T5-G H4		94
Flux cored wires for hardfacing				
	EN ISO 14700	DIN 8555		No
COREWELD A300	T Fe 1	MSG 1-250 (300)		95
COREWELD A350	T Fe 1	MSG 1-350		96
COREWELD A400	T Fe 3	MSG 6-GF-40		97
COREWELD A600	T Fe 2	MSG 6-GF-60P		98
COREWELD HT38	-	MF 1-GF-40-PT		99
COREWELD HT52	-	MF 1-GF-55-PT		100
COREWELD HT58	-	MF 6-GF-55-PT		101
COREWELD A55	T Fe 14	MF 10-60-GR		102
COREWELD A62	T Fe 14	MF 10-60-GR		103
COREWELD A63	T Fe 15	MF 10-GF-65-GZ		104
COREWELD A64	T Fe 15	MF 10-GF-65-G		105

RUTWELD 12

CLASSIFICATION:

EN ISO 2560-A: E 38 0 RC 11

DIN 1913: E 43 22 R(C)3

AWS A-5.1: E 6012/E6013

APPROVALS: UDT

DESCRIPTION:

- Medium coated rutile – cellulosic electrode
- Possibility of welding in all positions with welding machinery available on the market, also for 230V
- Possibility of welding with alternating current (off-load voltage state below 42V)
- Very good welding properties, slag removes easily, very good fluidity of welding and flexibility of welding arc
- For making joint penetrations also in pipelines in compulsory positions

BASE MATERIAL:

EN:

Construction steels: S235 – S275

Boiler plates: P235 – P275

Pipe steels: P235 – P295

Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,08

Si 0,30

Mn 0,50

MECHANICAL PROPERTIES:

Yield strength Rp0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>380	470 – 600	>20	>47

COATING: rutile – cellulosic

REDRYING TEMPERATURE: 110°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 70	2,5	15,0
2,5	350	55 – 85	5,0	20,0
3,2	350	90 – 140	5,0	20,0
4,0	350/450	130 – 180	5,0/6,0	20,0/24,0
5,0	450	180 – 230	6,0	24,0

RUTWELD 12 EXTRA

CLASSIFICATION:

EN ISO 2560-A: E 38 0 RC 11

DIN 1913: E 43 22 R(C)3

AWS A-5.1: E 6012/E6013

APPROVALS: UDT

DESCRIPTION:

- Rutile – cellulosic electrode, recommended for welding steel constructions and joint penetrations in pipelines in compulsory positions
- Possibility of welding in all positions with welding machinery available on the market, also for 230V
- Very good welding properties, slag removes easily, very good fluidity of welding and flexibility of welding arc
- Very good for welding of thin plates

BASE MATERIAL:

EN:

Construction steels: S235 – S275

Boiler plates: P235 – P275

Pipe steels: P235 – P295

Shipbuilding plates: A, B, D,

Thin plates

CHEMICAL COMPOSITION:

C 0,08

Si 0,30

Mn 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>380	470 – 600	>20	>47

COATING: rutile – cellulosic

REDRYING TEMPERATURE: 110°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 70	2,5	15,0
2,5	350	55 – 85	5,0	20,0
3,2	350	90 – 140	5,0	20,0
4,0	350/450	130 – 180	5,0/6,0	20,0/24,0
5,0	450	180 – 230	6,0	24,0

RUTWELD Z

CLASSIFICATION:

EN ISO 2560-A: E 42 0 RC 11

DIN 1913: E 51 22 RR(C) 6

AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Thick coated rutile-cellulosic electrode for welding in maintenance and repairing (f.ex. in shipyards and constructions)
- Very good welding characteristics in all, including compulsory, positions, especially for welding of the pipelines
- Recommended for welding dirty, rusty and oily materials and especially galvanizing plates

BASE MATERIAL:
EN:

Construction steels: S235 – S355

Boiler plates: P235 – P355

Pipe steels: P235, P275, P295, P355

Shipbuilding plates: A, B, D,

Galvanizing plates

CHEMICAL COMPOSITION:

C 0,08

Si 0,40

Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>420	500 – 640	>20	>47

COATING: rutile – cellulosic

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)


Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	30 – 50	2,1	12,6
2,5	350	55 – 85	4,0	16,0
3,2	350	90 – 135	4,0	16,0
4,0	350	130 – 170	4,0	16,0
5,0	450	175 – 220	5,5	22,0

RUTWELD 1 EXTRA

CLASSIFICATION:

EN ISO 2560-A: E 42 0 RC 11

DIN 1913: E 51 22 RR(C)6

AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Thick coated rutile – cellulosic electrode
- For welding low alloyed steels and the steels with higher tensile strength up to 600 MPa
- Excellent welding properties in all positions, also vertical down
- Very smooth stable arc, no spatters and almost no fumes
- Can be welded with a small appliances on 230V $U_0 < 50V$

BASE MATERIAL:
EN:

Construction steels: S235 – S355

Boiler plates: P235 – P355

Pipe steels: P235, P275, P295, P355

Shipbuilding plates: A, B, D,

Galvanizing plates

CHEMICAL COMPOSITION:

C 0,08

Si 0,40

Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>420	500 – 640	>20	>47

COATING: rutile – cellulosic

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC ($U_0 < 50V$), DC (+/-)


Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 60	2,3	13,8
2,5	350	55 – 85	4,5	18,0
3,2	350	90 – 140	4,5	18,0
4,0	450	130 – 180	4,5	18,0

RUTWELD 2 EXTRA

CLASSIFICATION:

EN ISO 2560-A: E 42 0 RR 12

DIN 1913: E 51 22 RR 6

AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Thick coated rutile electrode for welding heightened steels in constructions, boilers by fillet welding PA and PB
- Suitable for professionals in combinations with basic electrodes
- Very good characteristics, fast welding, no spatters and almost no fumes
- Possibility of with welding machinery available on the market, also for 230V

BASE MATERIAL:
EN:

Construction steels: S235 – S355

Boiler plates: P235 – P355

Pipe steels: P235, P275, P295, P355

Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,08

Si 0,50

Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>420	500 – 640	>20	>47

COATING: rutile

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)


PA

PB

PC

PD

PE

PF

Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 70	2,4	14,4
2,5	350	55 – 85	4,0	16,0
3,2	350	90 – 135	4,0	16,0
4,0	450	130 – 170	5,5	22,0
5,0	450	175 – 220	5,5	22,0

RUTWELD 13 EXTRA

CLASSIFICATION:

EN ISO 2560-A: E 38 0 R 12
 AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Medium coated rutile electrode, very good welding characteristics
- Recommended for fillet welding
- Very good striking and restriking, stable arc and thin layer of easily removable slag
- Possibility of with welding machinery available on the market, also for 230V

BASE MATERIAL:

EN:
 Construction steels: S235 – S275
 Boiler plates: P235 – P275
 Pipe steels: P235 – P295 ,
 Shipbuilding plates: A, B, D,
 Thin plates

CHEMICAL COMPOSITION:

C 0,08 Si 0,45 Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>380	470 – 600	>20	>47

COATING: rutile

REDRYING TEMPERATURE: 110°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 70	2,4	14,4
2,5	350	65 – 90	5,0	20,0
3,2	350	100 – 140	5,0	20,0
4,0	450	140 – 180	6,0	24,0

RUTWELD X

CLASSIFICATION:

EN ISO 2560-A: E 42 0 RR 12

DIN 1913: E 51 22 RR 6

AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Thick coated rutile electrode for welding heightened steels (up to 510 MPa)
- Very good striking, thin layer of easily removable slag
- Stable and concentrated arc allows fast welding and good fusion during fillet welding
- Possibility of with welding machinery available on the market, also for 230V

BASE MATERIAL:
EN:

Construction steels: S235 – S355

Boiler plates: P235 – P355

Pipe steels: P235, P275, P295, P355

Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,08

Si 0,50

Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av 0°C [J]
>420	500 – 640	>20	>47

COATING: rutile

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC (U₀ < 50V), DC (+/-)


Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 70	2,4	14,4
2,5	350	55 – 85	4,0	16,0
3,2	350	90 – 135	4,0	16,0
4,0	350	130 – 170	4,0	16,0
5,0	450	175 – 220	5,5	22,0

RUTWELD BS

CLASSIFICATION:

EN ISO 2560-A: E 38 2 RB 12

DIN 1913: E 43 43 RR(B)7

AWS A-5.1: E 6013

APPROVALS: UDT

DESCRIPTION:

- Rutile - basic electrode for welding heightened steels
- Guarantees very good mechanical and welding properties
- Recommended for welding of the tanks, ship constructions, rolling stock, gas pipings, pressure vessels and pipelines
- Recommended for joint penetrations
- For the professional works (especially pipelines) – direct current only

BASE MATERIAL:

EN:

Construction steels: S235 – S275

Boiler plates: P235 – P275

Pipe steels: P235 – P295

Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,10

Si 0,20

Mn 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av -20°C [J]
>380	470 – 600	>20	>47

COATING: rutile - basic

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC, DC (-)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 90	4,5	18,0
3,2	450	115 – 145	5,6	22,4
4,0	450	145 – 190	6,0	24,0
5,0	450	200 – 250	6,0	24,0

RAPID

CLASSIFICATION:

EN ISO 2560-A: E 38 2 RA 12

DIN 1913: E 43 33 AR 7

AWS A-5.1: 6020

APPROVALS: UDT

DESCRIPTION:

- Thick coated rutile – acid electrode for welding heightened steels (up to 600 MPa)
- Very fast welding, deep penetration especially in PA and PB positions
- Resistant for very high current during the welding

BASE MATERIAL:
EN:

Construction steels: S235 – S275

Boiler plates: P235 – P275

Pipe steels: P235 – P295

Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,08

Si 0,20

Mn 0,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av -20°C [J]
>380	470 – 600	>20	>47

COATING: rutile - basic

REDRYING TEMPERATURE: 140°C/1h

WELDING CURRENT: AC, DC (-)


Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 90	4,4	17,6
3,2	450	90 – 160	6,0	24,0
4,0	450	130 – 220	5,5	22,0
5,0	450	180 – 300	6,0	24,0

CELWELD 6010

CLASSIFICATION:

EN ISO 2560-A: E 42 2 C 21
AWS A-5.1: E 6010

DESCRIPTION:

- Cellulosic electrode for low alloyed and unalloyed steels
- Excellent welding properties in all positions, also vertical down
- Recommend for pipelines, tanks and other construction, especially for joint penetrations
- Very smooth stable arc, slag is very easy to remove
- Joint penetrations can be made as well on (+) as on (-), we recommend DC(-)

BASE MATERIAL:

API 5L: A, B, X42, X46, X52, X56 The root pass to API grade X80
DIN 17172: StE 210.7, StE 240.7, StE 290.7(MT), StE 320.7(TM), StE 360.7 (TM), the root pass to StE 550.7 (TM)
EN:
Construction steels: S235 – S275
Boiler plates: P235 – P275

CHEMICAL COMPOSITION:

C 0,12 Si 0,30 Mn 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -20°C [J]	Impact energy A _V -30°C [J]
>420	500 – 640	>20	>47	>27

COATING: cellulosic

REDRYING TEMPERATURE: forbidden

WELDING CURRENT: DC(+) joint penetration,
DC(-) filling



BASOWELD 50 (EVB 50p)

CLASSIFICATION:

EN ISO 2560-A: E 42 4 B 31 H5

AWS A-5.1: E 7018

APPROVALS:

TUV, DB: E 42 4 B32 H5

BV, ABS, GL

DNV, LR, RMRS: 3 YH5

DESCRIPTION:

- Basic coated, low hydrogen electrode with recovery about 120%, excellent welding characteristics
- For welding construction steels and fine grained steels with increased yield strength
- Deposit have very low hydrogen content, below 5ml/100g

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH

Pipe steels: P235 – P355N

Shipbuilding plates: A, B, D, E, AH32 – EH36

Finegrained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,08

Si 0,60

Mn 1,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av -40°C [J]	Impact energy Av -20°C [J]
>420	500 – 640	>22	>90	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC (+)

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 60	2,1	12,6
2,5	350	65 – 90	4,0	16,0
3,2	350/450	110 – 140	4,0/5,5	16,0/22,0
4,0	350/450	140 – 180	4,0/5,5	16,0/22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD 46 (EVB 46)

CLASSIFICATION:

EN ISO 2560-A: E 38 3 B 42
AWS A-5.1: E 7016

APPROVALS: UDT

DESCRIPTION:

- Basic coated electrode, recommended for repairs and maintenance
- Very good welding characteristic while welding oiled, dirty and rusted steels

BASE MATERIAL:

EN:
Construction steels: S235 – S355
Boiler plates: P235GH – P355GH
Pipe steels: P235 – P355N
Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,07 Si 0,40 Mn 0,80

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av-30°C [J]
380	470 – 600	>20	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC (+)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	50 – 60	2,1	12,6
2,5	350	65 – 90	4,0	16,0
3,2	450	110 – 140	5,5	22,0
4,0	450	140 – 180	5,5	22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD 55 (EVB 55p)

CLASSIFICATION:

EN ISO 2560-A: E 46 6 B 31 H5

DIN 1913: E Y 46 76 MnB

AWS A-5.1: E 7018-1

APPROVALS: UDT

DESCRIPTION:

- Basic coated, low hydrogen electrode
- For welding steels with tensile strength up to 680 MPa, working in extremely low temperature (47J in -60°C)

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH

Pipe steels: P235 – P355N

Shipbuilding plates: A, B, D, E, AH32 – H36

Finegrained steels: S275 – S420, S460

CHEMICAL COMPOSITION:

C 0,07 Si 0,30 Mn 1,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av -60°C [J]
>460	530 – 680	>20	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC (+)

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 90	4,0	16,0
3,2	350	110 – 140	4,0	16,0
4,0	450	140 – 180	5,5	22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD S

CLASSIFICATION:
EN ISO 2560-A: E 42 2 B(R) 12 H10
AWS A-5.1: E 7016

APPROVALS: UDT

DESCRIPTION:

- Basic double coated, universal electrode, very easy to weld
- For welding of pipelines and steel constructions
- For joint penetrations and welding in difficult position
- Very good welding properties, smooth and pure joint and 100% second ignition
- Double coating results in stable, concentrated and direct arc

BASE MATERIAL:

EN:
Construction steels: S235 – S355
Boiler plates: P235GH – P355GH
Pipe steels: P235 – P355N
Shipbuilding plates: A, B, D,

CHEMICAL COMPOSITION:

C 0,06 Si 0,55 Mn 0,75

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]
>450	550	28 – 30	100

COATING: rutile - basic
REDRYING TEMPERATURE: 300 – 350°C/2h, 380°C/1h
WELDING CURRENT: AC, DC (-) joint penetration,
DC (+) filling



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	60 – 90	4,5	18,0
3,2	350/450	90 – 140	4,3/5,5	17,2/22,0
4,0	450	140 – 190	5,5	22,0
5,0	450	190 – 250	5,5	22,0

BASOWELD 60

CLASSIFICATION:

EN ISO 2560-A: E 50 4 Mo B 42

DIN 8529: E Y 50 75 Mn1 MoB

AWS A-5.1: E 8018-G

DESCRIPTION:

- Basic coated electrode with Mn and Mo
- For welding steels with tensile strength up to 735 N/mm^2 , and yield strength up to 550 N/mm^2

BASE MATERIAL:

DIN:

Unalloyed steels: St 44,2, St 70,2

Boiler plates: HI, HII, 17Mn4, 19Mn5

Pipe steels: St35 – St52,4

Shipbuilding plates: A – E, AH32 – H36

Finegrained steels: StE255 – StE500, WStE255 – WstE500

Ageing resistant steels: ASt41, ASt45, ASt52

CHEMICAL COMPOSITION:

C 0,07

Si 0,45

Mn 1,30

Mo 0,35

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation As [%]	Impact energy Av -40°C [J]
>520	620 – 720	>22	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC (+)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 90	3,4	13,6
3,2	350	110 – 140	4,0	16,0
4,0	450	140 – 180	5,5	22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD NiCu

CLASSIFICATION:

EN ISO 2560-A: E 46 5 Z B 32 H5

AWS A-5.1: E 8018-G

DESCRIPTION:

- Basic coated electrode with Cu and Ni
- For welding corrosion resistant CORTEN type steels
- Recommended for shipbuilding and bridge construction

BASE MATERIAL:

DIN:

Corrosion resistant steels: WTSt37, WTSt52

CORTEN A, B, C

Patinax 37

RBH 35

Acor 37, Acor 50

HSB 51, HSB 55C

CHEMICAL COMPOSITION:

C 0,06 Si 0,50 Mn 1,00 Cu 0,40 Ni 0,70

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -50°C [J]
>460	530 – 680	>20	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC (+)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 90	4,5	18,0
3,2	350	110 – 140	4,5	18,0
4,0	450	140 – 180	5,5	22,0

RUTWELD Mo

CLASSIFICATION:

EN ISO 3580-A: E Mo R 12

AWS A-5.5: E 7013-A1 (mod.)

APPROVALS: UDT

DESCRIPTION:

- Rutile electrode with Mo alloy
- For welding creep resistant steels working in temperatures up to 500°C

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH, 16Mo3

Pipe steels: P235 – P355N, 16Mo3

Shipbuilding plates: A, B, D, E, AH32 – EH36

Finegrained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,06 Si 0,30 Mn 0,40 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>460	530 – 680	>20	>47

COATING: rutile

REDRYING TEMPERATURE: 120°C/1h

WELDING CURRENT: AC, DC -



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 95	4,5	18,0
3,2	350	115 – 145		
4,0	450	145 – 190		
5,0	450	200 – 240		

RUTWELD CrMo

CLASSIFICATION:

EN ISO 3580-A: E CrMo1 R 12

AWS A-5.5: E 8013-B2

APPROVALS: UDT

DESCRIPTION:

- Rutile electrode with Cr and Mo alloy
- For welding creep resistant steels working in temperatures up to 550°C

BASE MATERIAL:

EN:

Boiler plates: 13CrMo45

DIN:

Boiler and pipe steels: 13CrMo44, 15CrMo3, 13CrMoV42

CHEMICAL COMPOSITION:

C 0,08 Si 0,30 Mn 0,50 Mo 0,50 Cr 1,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>355	>510	>20	>47

COATING: rutile

REDRYING TEMPERATURE: 120°C/1h

WELDING CURRENT: AC, DC -



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 95		
3,2	350	115 – 145		
4,0	450	145 – 190		
5,0	450	200 – 240		

BASOWELD Mo

CLASSIFICATION:

EN ISO 3580-A: E Mo B 42 H5

DIN 8575: E Mo B 26

AWS A-5.5: E 7018-A1

APPROVALS: UDT, TUV

DESCRIPTION:

- Basic electrode with Mo alloy
- For welding creep resistant steels working in temperatures up to 525°C

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH, 16Mo3

Pipe steels: P235 – P355N, 16Mo3

Shipbuilding plates: A, B, D, E, AH32 – EH36

Finegrained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,05 Si 0,40 Mn 0,75 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]	Impact energy A _v -40°C [J]
>355	>510	>22	>47	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 95	4,5	18,0
3,2	350	100 – 130	4,5	18,0
4,0	450	140 – 180	5,5	22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD CrMo

CLASSIFICATION:

EN ISO 3580-A: E CrMo1 B 42 H5
DIN 8575 E CrMo1 B 20+
AWS A-5.5: E 8018-B2

APPROVALS: UDT, TUV

DESCRIPTION:

- Basic electrode with Cr and Mo alloy
- For welding creep resistant steels working in temperatures up to 550°C

BASE MATERIAL:

EN:

Boiler plates: 13CrMo45

DIN:

Boiler plates: 13CrMo44, 15CrMo3, 13CrMoV42

Steels for cementation: 16Cr3, 16MnCr5, 20MnCr5, 15CrMo5

Quenched and tempered steels: 25CrMo4

Steel castings: GS-22 CrMo5, GS-22CrMo54

CHEMICAL COMPOSITION:

C 0,05 Si 0,40 Mn 0,75 Cr 1,10 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>355	>510	>20	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 95	4,0	16,0
3,2	350	100 – 130	4,0	16,0
4,0	450	140 – 180	5,5	22,0
5,0	450	180 – 230	5,5	22,0

BASOWELD 2CrMo

CLASSIFICATION:

EN ISO 3580-A: E CrMo2 B 42 H5

DIN 8575 E CrMo2 B 20+

AWS A-5.5: E 9018-B3

APPROVALS: UDT, TUV

DESCRIPTION:

- Basic electrode with Cr and Mo alloy
- For welding creep resistant steels working in temperatures up to 600°C
- For similarly alloyed steels, quenched and tempered for cementation and nitriding

BASE MATERIAL:

EN:

Boiler plates: 10CrMo910

DIN:

Heat resistant steels: 10CrMo9.10, 10CrSiMoV7, 12CrSiMo8

Quenched and tempered steels: 30CrMoV9

Steel castings: GS-18CrMo9.10

CHEMICAL COMPOSITION:

C 0,06 Si 0,40 Mn 0,75 Cr 2,40 Mo 1,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>400	>500	>18	>47

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 95	4,0	16,0
3,2	350	90 – 140	4,0	16,0
4,0	450	130 – 180	5,5	22,0
5,0	450	170 – 230	5,5	22,0

BASOWELD 91CrMo

CLASSIFICATION:

EN ISO 3580-A: E CrMo91 B 42 H5

AWS A-5.4: E 9015 B9

APPROVALS: UDT

DESCRIPTION:

- Basic coated electrode with low hydrogen content
- For welding high temperature martensitic, creep resistant 9 – 12% Cr steels such as P91 and T91
- Welding is possible in all positions except vertical down
- Good toughness properties even under long term stresses and high creep rupture strength

BASE MATERIAL:

ASTM A 335:

P91 and T91 steels

CHEMICAL COMPOSITION:

C 0,10 Si 0,35 Mn 0,80 Cr 9,00 Mo 1,00 Ni 0,07 V 0,20 Nb 0,05 N 0,04

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
650	760	>17	>70

COATING: basic

REDRYING TEMPERATURE: 350°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 110	5,0	20,0
3,2	350	95 – 150	5,0	20,0
4,0	350	130 – 190	5,0	20,0

INOX 308L

CLASSIFICATION:

EN ISO 3581-A: E 19 9 LR 12

AWS A-5.4: E 308L-17

APPROVALS: UDT

DESCRIPTION:

- Austenitic rutile low carbon electrode
- For welding austenitic steels, when corrosion resistance is requested
- For welding austenitic steels Nb and Ti stabilised, resistant to oxidation up to 800°C

BASE MATERIAL:

EN 10088 – ½	W. – Nr	EN 10088 – ½	W. – Nr
X2CrNi19 11	1.4306	X5CrNi18 10	
X2CrNiN18 10	1.4311	X6CrNiTi 18 10	1.4541
X4CrNi18 10	1.4301	X6CrNiNb 18 10	1.4550
X6Cr 13	1.4308		1.4552

CHEMICAL COMPOSITION:

C ≤ 0,03 Si 0,80 Mn 0,70 Cr 19,00 Ni 10,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation A ₅ [%]	Impact energy A _V 20°C [J]	Impact energy A _V -196°C [J]
>320	>510	>30	>55	>30

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 5



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	30 – 50	1,3	7,8
2,5	300	50 – 85	1,4	8,4
3,2	350	70 – 120	1,7	10,2
4,0	350	110 – 165	1,7	10,2
5,0	350	165 – 230	1,7	10,2

INOX 316L

CLASSIFICATION:

EN ISO 3581-A: E 19 12 3 LR 12

AWS A-5.4: E 316L-16

APPROVALS: UDT

DESCRIPTION:

- Austenitic rutile low carbon electrode
- For welding austenitic steels, Nb and Ti stabilized steels up to 400°C

BASE MATERIAL:

EN 10088 – ½	W. – Nr	EN 10088 – ½	W. – Nr
X5CrNiMo 17 12 2	1.4401	X6CrNiMoNb 17 12 2	1.4580
X2CrNiMo 17 13 2	1.4404	X10CrNiMoTi 18 12	1.4573
X2CrNiMo 18 14 3	1.4435	X10CrNiMoNb 18 12	1.4583
X5CrNiMo 17 13 3	1.4436		

CHEMICAL COMPOSITION:

C=<0,03 Si 0,80 Mn 0,70 Cr 18,50 Ni 11,50 Mo 2,70

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20°C [J]	Impact energy A _V -120°C [J]
>320	>510	>25	>55	>32

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 8



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	30 – 50	1,3	7,8
2,5	300	50 – 85	1,4	8,4
3,2	350	70 – 120	1,7	10,2
4,0	350	110 – 165	1,7	10,2
5,0	350	165 – 230	1,7	10,2

INOX R 347

CLASSIFICATION:

EN ISO 3581-A: E 19 9 Nb R 12

AWS A-5.4: E 347-17

DESCRIPTION:

- Rutile Nb stabilised for welding stabilised and nonstabilised stainless steels
- Resistant to intergranular corrosion up to 400°C
- Weld metal is crack resistant

BASE MATERIAL:

DIN	W. – Nr	DIN	W. – Nr
Corrosion resistant steels:		Alloyed steel castings:	
X5CrNi 18 10	1.4301	G-X5CrNiNb 18 9	1.4552
X6CrNiTi 18 10	1.4541	G-X10CrNi 18 8	1.4312
X6CrNiNb 18 10	1.4550		

CHEMICAL COMPOSITION:

C ≤ 0,04 Si ≤ 1,00 Mn 0,70 Cr 19,00 Ni 10,00 Nb > 8x%C

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation A ₅ [%]	Impact energy A _V 20°C [J]	Impact energy A _V -60°C [J]
>390	590 – 690	>30	>50	>32

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 6



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	30 – 50	1,3	7,8
2,5	300	50 – 85	1,4	8,4
3,2	350	70 – 125	1,5	9,0
4,0	350	110 – 165	1,5	9,0
5,0	350	165 – 230	1,5	9,0

INOX B 347

CLASSIFICATION:

EN ISO 3581-A: E 19 9 Nb B 22

AWS A-5.4: E 347-15

DESCRIPTION:

- Basic Nb stabilised for welding stabilised and nonstabilised stainless steels
- Resistant to intergranular corrosion up to 400°C
- Weld metal is crack resistant

BASE MATERIAL:

DIN	W. – Nr	DIN	W. – Nr
Corrosion resistant steels:		Alloyed steel castings:	
X5CrNi 18 10	1.4301	G-X5CrNiNb 18 9	1.4312
X6CrNiTi 18 10	1.4541	G-X10CrNi 18 8	1.4312
X6CrNiNb 18 10	1.4550		

CHEMICAL COMPOSITION:

C 0,06 Si 0,40 Mn 1,80 Cr 19,00 Ni 10,00 Nb> 8x%C

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>390	590 – 690	>30	>50

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 8



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	40 – 60	1,3	7,8
2,5	300	50 – 80	1,4	8,4
3,2	350	80 – 110	1,4	8,4
4,0	350	110 – 140	1,5	9,0
5,0	350	165 – 230	1,5	9,0

INOX R 318

CLASSIFICATION:

EN ISO 3581-A: E 19 12 3 Nb R 12

AWS A-5.4: E 318-17

DESCRIPTION:

- Austenitic rutile Nb stabilised electrode
- For welding stabilised and nonstabilised stainless steels
- Resistant to intergranular corrosion up to 400°C
- Resistant to oxidation up to 800°C
- Good hot cracking resistance of the weld material

BASE MATERIAL:

DIN:	W. – Nr:	AISI/ASTM:	DIN:	W. – Nr:	AISI/ASTM
X5CrNiMo 17 12 2	1.4401	316	X10CrNiMoTi 18 12	1.4573	316Ti
X5CrNiMo 17 13 3	1.4436	316	X10CrNiMoNb 118 12	1.4583	316Cb
X6CrNiMoTi 17 12 2	1.4571	316Ti	G-X6CrNiMo 18 10	1.4408	A157
X6CrNiMoNb 17 12 2	1.4581	316Cb	G-X5CrNiMoNb 18 10	1.4581	316L

CHEMICAL COMPOSITION:

C=< 0,04 Si =< 1,0 Mn 0,70 Cr 18,50 Ni 11,50 Mo 2,70 Nb> 8 x %C

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>400	590 – 690	>30	>47

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 10



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	30 – 50	1,3	7,8
2,5	300	50 – 85	1,4	8,4
3,2	350	70 – 120	1,7	10,2
4,0	350	110 – 165	1,5	9,0
5,0	350	165 – 230	1,5	9,0

INOX R 309L

CLASSIFICATION:

EN ISO 3581-A: E 23 12 LR 12

AWS A-5.4: E 309L-16

APPROVALS: UDT

DESCRIPTION:

- Rutile, low carbon electrode
- For welding simmilar heat resistant steels and steel castings
- For joint welding dissimilar steels such as: unalloyed and low alloyed steels with high alloyed steels
- The deposit is scale resistant up to 1000°C

BASE MATERIAL:

DIN:	W.Nr.: AISI/ASTM:	DIN:	W.Nr.:AISI/ASTM:
Austenitic and ferritic – pearl steels:		Alloyed steel castings:	
X 15CrNiSi 20 12	1.4842 309	G-X30CrSi6,	1.4710 -
X 7CrNi 23 14	1.4833	G-X40CrSi17	1.4740 -
X 10 CrAl 7	1.4713 -	G-X40CrNiSi 22 9	1.4826 -
X 10CrAl 13	1.4724 405 5		
X 10CrAl18			

CHEMICAL COMPOSITION:

C<= 0,04 Si<= 0,90 Mn 0,70 Cr 23,00 Ni 13,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>400	550 - 650	>30	>47

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 15



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	40 – 80	1,5	9,0
3,2	350	70 – 100	1,7	10,2
4,0	350	110 – 160	1,5	9,0
5,0	350	160 – 230	1,5	9,0

INOX R 309 MoL

CLASSIFICATION:

EN ISO 3581-A: E 23 12 LR 12

AWS A-5.4: E 309MoL-17

DESCRIPTION:

- Rutile electrode for joining difficult to weld steels
- Weld metal is heat resistant and non-scaling up to 1050°C
- Operating temperatures: -20°C up to 300°C

BASE MATERIAL:

Non alloyed with alloyed steels

Non alloyed with high alloyed and creep resistant steels

Cladding

CHEMICAL COMPOSITION:

C ≤ 0,04 Si ≤ 0,90 Mn 0,70 Cr 23,00 Ni 13,00 Mo 2,60

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]
>450	> 650	>30	>47

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 20



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	50 – 80	1,5	9,0
3,2	350	60 – 100	1,6	9,6
4,0	350	80 – 140	1,6	9,6
5,0	350	130 – 170	1,6	9,6

INOX R 310

CLASSIFICATION:

EN ISO 3581-A: E 25 20 R 12

AWS A-5.4: E 310-16

APPROVALS: UDT

DESCRIPTION:

- Rutile, austenitic electrode for welding 309 and 310 type stainless steels
- Resistance for scaling up to 1200°C

BASE MATERIAL:

EN 10088 – ½	W. – Nr
X15CrNiSi 25 20	1.4841
X12CrNi 25 21	1.4845
X15CrNiSi 20 12	1.4828
X10CrAl7	1.4713
X10CrAl13	1.4724

CHEMICAL COMPOSITION:

C 0,11	Si 0,50	Mn 2,00	Cr 25,00	Ni 20,00
--------	---------	---------	----------	----------

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>300	540 – 640	>30	>50

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN 0



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	65 – 80	1,4	8,4
3,2	350	90 – 120	1,7	10,2
4,0	350	115 – 150	1,5	9,0
5,0	350	160 – 210	1,5	9,0

INOX B 310

CLASSIFICATION:

EN ISO 3581-A: E 25 20 B 42

AWS A-5.4: E 310 – 15

APPROVALS: UDT

DESCRIPTION:

- Basic, austenitic electrode for welding 309 and 310 type stainless steels
- Resistance for scaling up to 1200°C
- Cryogenic resistance down to 196°C

BASE MATERIAL:
DIN:
W.Nr.: AISI/ASTM:

Chemical corrosion resistant steels:

X 15 CrNiSi25.20 1.4841 310/314

X 12CrNi25.21 1.4845 310S

X 15CrNiSi20.12 1.4828 309

X 10CrAl7, X10CrAl13 1.4713, 1.4724, 405

X 10CrAl18, X10CrAl24 1.4742, 1.4762-, 442/446

DIN:

Alloyed steel castings:

G-X30CrSi6, G-40CrSi17

G-X15CrNiSi25.20

G-X40CrNiSi25.12

G-X40CrNiSi22.9

W.Nr.: AISI/ASTM:

1.4710, 1.4740

1.4741 A 197 HF

1.4837

1.4826

CHEMICAL COMPOSITION:

C 0,10

Si 0,20

Mn 2,00

Cr 25,00

Ni 20,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>300	540 – 640	>30	>70

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC +

FERRITE CONTENT: FN 0


Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	65 – 80	1,4	8,4
3,2	350	90 – 120	1,7	10,2
4,0	350	115 – 150	1,5	9,0
5,0	350	160 – 210	1,5	9,0

INOX B 307

CLASSIFICATION:

EN ISO 3581-A: E 18 8 Mn B 22

AWS A-5.4: E 307 – 15

APPROVALS: UDT

DESCRIPTION:

- Basic electrode for welding low and high alloyed steels
- Very good impact energy and resistance for scaling

BASE MATERIAL:

EN 10088 – ½

X120Mn12

X2CrTi12

X20Cr13

X6Cr13

Mixed combinations: S235 – S355

CHEMICAL COMPOSITION:

C 0,12 Si 0,60 Mn 7,00 Cr 18,00 Ni 8,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20°C [J]
>350	>500	>25	>80

COATING: basic

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: DC +

FERRITE CONTENT: FN 0



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	65 – 70	1,4	8,4
3,2	350	90 – 120	1,6	9,6
4,0	350	115 – 150	1,5	9,0
5,0	350	160 – 210	1,7	10,2

INOX R 312

CLASSIFICATION:

EN ISO 3581-A: E 29 9 R 12

AWS A-5.4: E 312 – 17

DESCRIPTION:

- Rutile austenitic – ferritic electrode
- Recommended for dissimilar joints and difficult to weld steels
- Weld metal is crack and heat resistant up to 1000°C

BASE MATERIAL:

EN 10088 – ½

X120Mn12

X10Cr13

CHEMICAL COMPOSITION:

C 0,11 Si 0,90 Mn 0,90 Cr 29,00 Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Hardness [HB]
>550	740 – 840	>20	App. 235

COATING: rutile

REDRYING TEMPERATURE: 300 – 350°C/2h

WELDING CURRENT: AC, DC +

FERRITE CONTENT: FN app 40



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300	40 – 60	1,3	7,8
2,5	300	50 – 80	1,4	8,4
3,2	350	80 – 110	1,5	9,0
4,0	350	110 – 140	1,5	9,0
5,0	350	165 – 230	1,5	9,0

NICROWELD 70/15

CLASSIFICATION:

EN ISO 14172: E Ni 6182
DIN 1736: EL NiCr15FeMn
AWS A-5.11: E NiCrFe-3

DESCRIPTION:

- Special basic coated Ni base core wire electrode
- Recommended for welding in low temperature and atomic industry
- Suitable for service temperatures for -196°C to 600°C
- Scaling resistant up to 1200°C (S-free atmosphere)
- Thermal shock resistant (for austenitic steels)
- Very good resistance to hot cracking and corrosion at high temperatures

BASE MATERIAL:

Unalloyed and alloyed, high-temperature, creep resistant, low temperature steels to X 8 Ni 9
High alloyed Cr and CrNi steels, particularly for joint welding of dissimilarly alloyed materials, Ni and Ni alloys and nickel steel combinations
Joint welding cooper with stainless steels

CHEMICAL COMPOSITION:

C 0,06 Si 0,50 Mn 6,50 Cr 15,00 Nb 2,00 Fe 7,00 Ni rest

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -196°C [J]	Hardness [HB]
>390	620 – 720	>30	>60	App. 170

COATING: basic

REDRYING TEMPERATURE: 250 – 300°C/1 – 2h

WELDING CURRENT: DC +

FERRITE CONTENT: FN app 0



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	75 – 100	1,5	9,0
3,2	350	100 – 140	1,5	9,0
4,0	350	140 – 180	1,5	9,0
5,0	350	170 – 210	1,5	9,0

NICROWELD 70/20

CLASSIFICATION:

EN ISO 14172: E Ni 6082

DIN 1736: EL NiCr19 Nb

AWS A-5.11: E NiCrFe-2

DESCRIPTION:

- Basic coated nickel base electrode with an alloyed core wire
- Recommended for joining and cladding low alloyed and alloyed steels, iron and nickel base alloys and for dissimilar joints
- The deposit is resistant to hot cracking and free embrittlement at high and also low temperatures, non scaling up to 1000°C and cold tough to -196°C

BASE MATERIAL:

NiCr23Mo16Al	2.4605	NiCr23Fe	2.4851	NiCr10	2.4870
NiCr20Ti	2.4630	NiCr22Mo9Nb	2.4856	NiCr23Fe	2.4851
NiCr20TiAl	2.4631	NiCr21Mo	2.4858	NiCr20TiAl	2.4952
NiCr15Fe7TiAl	2.4669	NiCr60-15	2.4867	X10NiCrAlTi32-20	1.4876 (Alloy 800)
NiCr15Fe	2.4816	NiCr21Mo	2.4858	X5NiCrAlTi31-20	1.4958
LC-NiCr15Fe	2.4817	NiCr80-20	2.4869	X8NiCrAlTi32-21	1.4959 (Alloy 800HT)

CHEMICAL COMPOSITION:

C <0,04 Mn 4,50 Mo <1,00 Cr 19,00 Fe <4,00 Nb 2,00 Ni rest

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -196°C [J]	Hardness [HB]
420	700	42	96	App. 235

COATING: basic

REDRYING TEMPERATURE: 350°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	50 – 90	1,5	9,0
3,2	350	70 – 120	1,5	9,0
4,0	350	100 – 160	1,5	9,0
5,0	350	140 – 200	1,5	9,0

NICROWELD 625

CLASSIFICATION:

EN ISO 14172: E Ni 6625
DIN 1736: EL NiCr 20 Mo 9 Nb
AWS A-5.11: E NiCrMo-3

DESCRIPTION:

- Lime coated nickel based electrode
- For joining and cladding stainless, heat resistant and cold tenacious steels
- Recommended also for welding dissimilar steels, f. ex. low alloyed with Ni or Cu based steels
- The deposit is resistant to hot cracking and free embrittlement at high and also low temperatures, non scaling up to 1100°C and cold tough to -196°C

BASE MATERIAL:

X2NiCrAlTi32-20	1.4558	NiCr20CuMo	2.4660	X8Ni9	1.5662
NiCr20TiAl	2.4631	NiCr21Mo	2.4858	X12Ni5	1.5680
NiCr23Mo16Al	2.4605	NiCr20Ti	2.4951	GX10Ni5	1.5681
NiCr22Mo6Cu	2.4618	NiCr15Fe	2.4816	X3CrNiN18-10	1.6907
NiCr22Mo7Cu	2.4619	LC-NiCu15Fe	2.4817	X3CrNiMoN18-4	1.6967
NiCr20Ti	2.4630	NiCr23Fe	2.4851	X10NiCrAlTi32-20	1.4876 (Alloy800)
NiCr21Mo6Cu	2.4641	NiCr22Mo9Nb	2.4856	X8NiCrAlTi32-21	1.4959 (Alloy 800HT)

CHEMICAL COMPOSITION:

C <0,03 Si 0,60 Mn 1,20 Cr 22,00 Mo 9,00 Mn 2,70 Fe <5 Ni basis

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -196°C [J]
500	750	30	40

COATING: basic

REDRYING TEMPERATURE: 300°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	50 – 70	1,5	9,0
3,2	350	70 – 100	1,5	9,0
4,0	350	90 – 120	1,5	9,0

DURWELD 250

CLASSIFICATION:

EN ISO 14700-A: E Fe1

DIN 8555: E 1-UM-250

APPROVALS: UDT

DESCRIPTION:

- Hardfacing electrode – general purpose
- For hardfacing parts exposed to heavy impact
- Produces medium hardness deposit metal, for machine parts exposed to wear, cog wheels, tracks etc.
- The deposit cannot be hardened

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,16

Cr 1,2

Mn 1,0

MECHANICAL PROPERTIES:Hardness
[HB]

220 – 270

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

COATING: basic**REDRYING TEMPERATURE:** 300°C/2h**WELDING CURRENT:** DC +

Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 90	4,0	16,0
3,2	350	100 – 135	4,5	18,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

DURWELD 300

CLASSIFICATION:

EN ISO 14700-A: E Fe3

DIN 8555: E 1-UM-300

APPROVALS: UDT

DESCRIPTION:

- Hardfacing Cr flux alloyed electrode – general purpose
- For hardfacing parts exposed to heavy impact and wear
- For cog wheels, tracks, etc.

BASE MATERIAL:

Steel
Cast steels

CHEMICAL COMPOSITION:

C 0,18 Cr 1,2 Mn 1,0

MECHANICAL PROPERTIES:

Hardness
[HB]

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

275 – 325

COATING: basic

REDRYING TEMPERATURE: 300°C/2h, 400°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 90	4,0	16,0
3,2	350	100 – 135	4,5	18,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

DURWELD 400

CLASSIFICATION:

EN ISO 14700-A: E Fe3

DIN 8555: E 1-UM-400

APPROVALS: UDT

DESCRIPTION:

- Hardfacing Cr, Mn flux alloyed electrode – general purpose
- Gives wear and heavy impact resistant weld material
- For chain wheels, tracks, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,22

Cr 1,5

Mn 1,0

MECHANICAL PROPERTIES:

Hardness

[HB]

350 – 450

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

COATING: basic**REDRYING TEMPERATURE:** 300°C/2h,r 400°C/1h**WELDING CURRENT:** DC +

Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	100 – 135	4,5	18,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

DURWELD 600

CLASSIFICATION:

EN ISO 14700-A: E Fe8

DIN 8555: E 6-UM-60

APPROVALS: UDT

DESCRIPTION:

- Hardfacing electrode – general purpose
- Resistace to abrasion and heavy impact
- Weld metal can be grinded and cuted after soft annealing

BASE MATERIAL:

Steel
Cast steels

CHEMICAL COMPOSITION:

C 0,5 Cr 7,5

MECHANICAL PROPERTIES:

Hardness
[HRC]

The hardness of the deposit depends on
the chemical composltion of base material
and relevant welding conditions.

57 – 62

COATING: basic

REDRYING TEMPERATURE: 300°C/2h, 400°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	100 – 135	4,5	18,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

UTOPWELD 38

CLASSIFICATION:

EN ISO 14700-A: E Fe3

DIN 8555: E 3-UM-40-T

APPROVALS: UDT

DESCRIPTION:

- Hardfacing Mo,Cr, V alloyed electrode
- Resistance to wear, impact and ductility
- For hardfacing hot and cold working tools, for correction of cavities in die blocks, dies and containers for metal tube and rod extrusion

BASE MATERIAL:

Alloyed tool steel

CHEMICAL COMPOSITION:

C 0,13

Cr 5,0

Mo 4,0

V 0,2

W +

MECHANICAL PROPERTIES:Hardness
[HRC]

36 – 42

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

COATING: basic**REDRYING TEMPERATURE:** 400°C/1h**WELDING CURRENT:** DC +

Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70 – 90	4,0	16,0
3,2	350	110 – 135	4,0	16,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

UTOPWELD 55

CLASSIFICATION:

EN ISO 14700-A:E Fe4

DIN 8555: E 6-UM-60-T

APPROVALS: UDT

DESCRIPTION:

- Hardfacing Mo,Cr, V alloyed electrode
- Resistace to wear, impact and ductility
- Weld metal can be grinded and cuted after soft annealing
- For hardfacing hot and cold working tools

BASE MATERIAL:

Alloyed tool steel

CHEMICAL COMPOSITION:

C 0,5 Cr 5,0 Mo 5,0 V 0,6 W +

MECHANICAL PROPERTIES:

Hardness
[HRC]

The hardness of the deposit depends on
the chemical composltion of base material
and relevant welding conditions.

55 – 60

COATING: basic

REDRYING TEMPERATURE: 400°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	110 – 135	5,0	20,0
4,0	450	130 – 170	5,5	22,0
5,0	450	180 – 220	5,5	22,0

ABRAWELD 54

CLASSIFICATION:

EN ISO 14700-A:E Fe8

DIN 8555: E 6-UM-55-G

APPROVALS: UDT

DESCRIPTION:

- Hardfacing electrode
- Used when abrasion, heavy impact and resistance to metal – metal wear is needed
- Recommended for mixers, crusher hammers, cams, gears, ploughshares
- Preheating is not required

BASE MATERIAL:

Austenitic manganese steels

HEAT TREATMENT:

Preheating is not required.

CHEMICAL COMPOSITION:

C 0,5 Si 2,00 Cr 9,50

MECHANICAL PROPERTIES:

Hardness (20°C) [HRC]	Hardness (500°C) [HB]	Wear coeff. [%]
54	300	70

The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.

COATING: basic

REDRYING TEMPERATURE: 300°C/2h

WELDING CURRENT: AC, DC +

METAL RECOVERY: 110%


Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	80 – 150	4,0	16,0
4,0	450	125 – 190	5,0	20,0
5,0	450	180 – 255	5,0	20,0

ABRAWELD 58

CLASSIFICATION:
EN ISO 14700-A: E Fe14
DIN 8555: E 10-UM-60-GR

APPROVALS: UDT

DESCRIPTION:

- Hardfacing electrode
- Resistance to extreme abrasion and moderate impact
- Recommended for earthmoving and crushing equipment, conveyor screws, bucket teeth and lips and soft ore crushers
- Weld material can be grinded
- Recommended buffer layer with INOX B307 or EmN17Cr13
- Preheating is not required

BASE MATERIAL:

Austenitic manganese steels

CHEMICAL COMPOSITION:

C 3,2 Cr 32,0

MECHANICAL PROPERTIES:

Hardness (20°C) [HRC]	Wear coeff. [%]
58	2

The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.

COATING: rutile
REDRYING TEMPERATURE: 300°C/2h
WELDING CURRENT: AC, DC +
METAL RECOVERY: 180%



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	65 – 95	4,0	18,0
3,2	350	110 – 140	4,0	16,0
4,0	450	160 – 200	5,0	20,0
5,0	450	210 – 270	5,0	20,0

ABRAWELD 64

CLASSIFICATION:

EN ISO 14700-A: E Fe15

DIN 8555: E 10-UM-65-GR

APPROVALS: UDT**DESCRIPTION:**

- Hardfacing electrode
- Resistance to extreme abrasion and moderate impact up to 450°C
- Recommended for brick and cement industry, mill blades and scratches, excavator cogs
- Weld material can be grinded
- Recommended buffer layer with INOX B307 or EmN17Cr13
- Preheating is not required

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 7,0

Cr 22,0

Nb 7,00

MECHANICAL PROPERTIES:Hardness (20°C)
[HRC]Wear coeff.
[%]

64

0,5

The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.

COATING: basic**REDRYING TEMPERATURE:** 300°C/2h**WELDING CURRENT:** AC, DC +**METAL RECOVERY:** 190%

Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	140 – 170	4,0	16,0
4,0	450	160 – 200	5,0	20,0
5,0	450	210 – 270	5,0	20,0

ABRAWELD 66

CLASSIFICATION:
EN ISO 14700-A: E Fe16
DIN 8555: E 10-UM-65-GRZ

APPROVALS: UDT

DESCRIPTION:

- Hardfacing electrode
- Resistance to extreme abrasion and moderate impact up to 600°C
- Recommended for brick and cement industry, earthmoving equipment and fire grate teeth in iron and steel industry
- Weld material can be grinded
- Recommended buffer layer with INOX B307 or EmN17Cr13
- Preheating is not required

BASE MATERIAL:

Steel
Cast steels

CHEMICAL COMPOSITION:

C 6,0 Cr 22,0 Mo 6,0 Nb 6,0 W 2,0 V 1,0

MECHANICAL PROPERTIES:

Hardness (20°C) [HRC]	Hardness (600°C) [HRC]
66	50

The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.

COATING: basic
REDRYING TEMPERATURE: 300°C/2h
WELDING CURRENT: DC +
METAL RECOVERY: 235%



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	100 – 130	4,0	16,0
4,0	450	160 – 190	5,5	22,0
5,0	450	220 – 250	5,5	22,0

MONEL

CLASSIFICATION:

EN ISO 1071-A: E C NiCu-B

DIN 8573: E NiCuG3

AWS A-5.15: E NiCu-B

APPROVALS: UDT

DESCRIPTION:

- Cast iron electrode with MONEL core wire
- For welding grey cast iron and repair purpose
- Welding in all positions
- For thick elements light heating is recommended

BASE MATERIAL:

Grey cast

CHEMICAL COMPOSITION:

Ni 63,0

Cu 30,0

MECHANICAL PROPERTIES:

Tensile strength

Hardness

Rm [N/ mm²]

[HB]

300

160

REDRYING TEMPERATURE: 200°C/1h

WELDING CURRENT: AC, DC -



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	50 – 80	1,6	9,6
3,2	350	80 – 110	2,0	12,0
4,0	350	110 – 150	2,0	12,0
5,0	350	150 – 190	2,0	12,0

SUPERWELD Ni

CLASSIFICATION:

EN ISO 1071-A: E C Ni-CI

DIN 8573: E NiBG1

AWS A-5.15: E Ni-CI

APPROVALS: UDT

DESCRIPTION:

- Cast iron electrode with Ni pure core wire
- For cold welding grey and malleable cast iron
- Joining cast iron with steel
- All positions
- For thick elements light heating is recommended

BASE MATERIAL:

Grey cast

Malleable cast

Cast steels

CHEMICAL COMPOSITION:

Ni 96,0

MECHANICAL PROPERTIES:

Tensile strength Rm [N/ mm ²]	Hardness [HB]
300	160

COATING: basic

REDRYING TEMPERATURE: 200°C/1h

WELDING CURRENT: AC, DC -



Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	50 – 80	1,4	8,4
3,2	350	80 – 110	2,0	12,0
4,0	350	110 – 150	2,0	12,0
5,0	350	150 – 190	2,0	12,0

CASTWELD NiFeB

CLASSIFICATION:

EN ISO 1071-A: E C NiFe-Cl

DIN 8573: E NiFe BG1

AWS A-5.15: E NiFe-Cl

APPROVALS: UDT

DESCRIPTION:

- Cast iron electrode with NiFe bimetal core wire
- For cold welding grey, nodular and malleable cast iron
- Joining cast iron with steel
- Excellent welding properties, do not overheats, high speed of welding, almost no spatters, slag removes easily
- Can be welded with AC $U_o < 50V$ and DC (+) and (-)

BASE MATERIAL:

Grey cast

Malleable cast iron

Nodular cast iron

CHEMICAL COMPOSITION:

Ni 54,0

Fe 42,0

MECHANICAL PROPERTIES:

Tensile strength

Hardness

Rm [N/mm²]

[HB]

>450

160 – 190

COATING: basic

REDRYING TEMPERATURE: 200°C/1h

WELDING CURRENT: AC, DC +



PA

PB

PC

PE

PF

PG

Welding parameters			Packing (vacuum)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	300	60 – 80	1,6	9,6
3,2	350	80 – 110	2,0	12,0
4,0	350	110 – 150	2,0	12,0

CUTWELD 2

CLASSIFICATION:

DESCRIPTION:

- Electrode for cutting and gouging
- For all types of steels, cast iron, copper and its alloys
- In small spaces the air ventilation is necessary

BASE MATERIAL:

Steels
Cast iron
Copper alloys
Copper
Aluminium alloys
Aluminium

COATING: special

REDRYING TEMPERATURE: 200°C/1h

WELDING CURRENT: AC, DC (+/-)



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
3,2	350	130 – 200	4,0	16,0
4,0	450	180 – 250	5,0	20,0
5,0	450	250 – 350	5,2	20,8

BRONWELD CuSn

CLASSIFICATION:

DIN 1733: E CuSn-7

AWS A-5.6: E CuSn-A

DESCRIPTION:

- Basic coated tin bronze electrode for repairing copper and copper tin bronzes, brasses and phosphor bronzes
- Suitable for surfacing on brasses, wrought bronzes (CuSn), mild steel and cast steel

BASE MATERIAL:

CuSn2 2.1010

CuSn6 2.1020

CuSn8 2.1030

Copper

Grey cast iron

CHEMICAL COMPOSITION:

Cu Balance Sn 7,00 Mn 0,80 P 0,10 Fe 0,20

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]
180	300	25

REDRYING TEMPERATURE: 200°C/1h

WELDING CURRENT: DC +



Welding parameters			Packing	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	50 – 80	5,0	20,0
3,2	350	80 – 120	5,0	20,0
4,0	450	120 – 150	6,0	24,0
5,0	450	150 – 200	6,0	24,0

ALU 99,5

CLASSIFICATION:
DIN 1732: EL-Al99,5
AWS A-5.3: E 1100

- DESCRIPTION:**
- Electrode for rapidly joining aluminium and aluminium alloys (max 0,5% of alloying elements)
 - For construction and maintenance
 - Recommended for cladding or rebuilding parts
 - Can be used for flame welding
 - Very good weldability with good penetration and porosity free deposit
 - Unique self lifting slag and improved coating against moisture pick up

BASE MATERIAL:
Pure aluminium with max 0,5% alloying elements

CHEMICAL COMPOSITION:
Al 99,5 Si 0,30 Fe 0,20

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]
>30	150	>25

REDRYING TEMPERATURE: 110°C/2h
WELDING CURRENT: DC +



Welding parameters			Packing (metal cans)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	70	2,0	8,0
3,2	350	110	2,0	8,0
4,0	350	135	2,0	8,0

ALU 1Mn

CLASSIFICATION:

DIN 1732: EL-Al1Mn

AWS A-5.3: E 3003

DESCRIPTION:

- Manganese alloyed electrode for rapidly joining aluminum alloys
- For construction and maintenance
- Recommended for joining aluminum alloys such as broken parts and or other casting parts
- Ideal for cladding or rebuilding parts
- Very good weldability with good penetration and porosity free deposit
- Unique self lifting slag and improved coating against moisture pick up
- Increased strength and excellent ductility due to Mn content
- Excellent corrosion resistance

BASE MATERIAL:

Aluminium alloyed with manganese, copper, silicon and magnesium

Disimilar grades of aluminium

Storage tanks, truck and trailer parts, chemical tanks, food equipment

AlMn0,6; AlMn1; AlMn1Mg0,5; AlMn1Mg1; AlMg3

CHEMICAL COMPOSITION:

Fe 0,35 Si 0,30 Cu 0,10 Mg 0,20 Mn 1,20 Zn 0,05 Al rest

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Hardness [HB]
>80	>150	>10	>40

REDRYING TEMPERATURE: 110°C/2h

WELDING CURRENT: DC +



Welding parameters			Packing (metal cans)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	50 – 80	2,0	8,0
3,2	350	70 – 120	2,0	8,0
4,0	350	110 – 150	2,0	8,0

ALU Si5

CLASSIFICATION:
DIN 1732: EL-AlSi5
AWS A-5.10: E 4043

- DESCRIPTION:
- Electrode for rapidly joining aluminium and aluminium alloys (max 2% of alloying elements)
 - For aluminium castings with Si max 7%

BASE MATERIAL:

AlSi alloys with max. 7% Silicium, AlMg alloys with max. 3% Magnesium, 3.3206, 3.3210, 3.2315, 3.3211, 3.2371, 3.2341, 3.2151, AlMgSi 0.5, AlMgSi 0.7, AlMgSi 1, AlMg 1SiCu, G.AISI 7 Mg, G.AISI 5 Mg, G.AISI 6 CU 4

CHEMICAL COMPOSITION:

Al 94,50 Si 5,00 Fe 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]
>70	>140	>12

REDRYING TEMPERATURE: 110 – 150°C/1 – 2h
WELDING CURRENT: DC +



Welding parameters			Packing (metal cans)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	50 – 80	2,0	8,0
3,2	350	80 – 120	2,0	8,0
4,0	350	110 – 150	2,0	8,0

ALU Si12

CLASSIFICATION:

DIN 1732: EL-ALSi12

AWS A-5.10: E 4047

DESCRIPTION:

- Electrode for rapidly joining cast aluminium alloys
- Recommended for joining aluminum alloys such as broken gear parts and or other casting parts
- Ideal for cladding or rebuilding parts
- Very good weldability with good penetration and porosity free deposit
- Unique self lifting slag and improved coating against moisture pick up

BASE MATERIAL:

Aluminum alloyed with copper, silicon, and magnesium.

Dismilar grades of aluminum

CHEMICAL COMPOSITION:

Al 87,5

Si 12,0

Fe 0,5

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]
>180	>300	>7

WELDING CURRENT: DC +



Welding parameters			Packing (metal cans)	
Φ	Length [mm]	Current [A]	Weight of packet [kg]	Weight of carton [kg]
2,5	350	50 – 80	2,0	8,0
3,2	350	80 – 120	2,0	8,0
4,0	350	110 – 150	2,0	8,0

MIGWELD 2

CLASSIFICATION:

EN ISO 14341-A: G3Si1
DIN 8559: SG2
ASME/AWS A- 5.18: ER 70 S-6

DESCRIPTION:

- Solid copper coated welding wire for welding in gas shielding atmospheres
- Recommended for low alloyed steels with tensile strength below 530 N/mm², for example boiler plates, fine-grained steel, pipe and shipbuilding steels, cast steels

BASE MATERIAL:

EN:
Construction steels: S235 – S355
Boiler plates: P235GH – P355GH
Pipe steels: P235 – P355N
Shipbuilding plates: A, B, D, E, AH32 – EH36
Fine-grained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,08 Si 0,90 Mn 1,50 P <0,025 S <0,025

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -40°C [J]
>420	500 – 640	>22	>47

SUITABLE SHIELDING GASES (EN 439):

100% CO₂ (C1)
Ar + 18% CO₂ (M21)
CO₂ + Ar + O₂ (M22)

Welding parameters			Packing	
Φ	Current [A]	Voltage [V]	BS300 spool [kg]	Drum [kg]
0,8	60 – 180	18 – 24	15,0	250,0
1,0	90 – 300	19 – 32	15,0	250,0
1,2	130 – 360	19 – 35	15,0	250,0
1,6	200 – 240	22 – 36	15,0	250,0

MIGWELD 3

CLASSIFICATION:

EN ISO 14341-A: G4Si1

DIN 8559: SG3

ASME/AWS A- 5.18: ER 70 S-6

DESCRIPTION:

- Solid copper coated welding wire for welding in gas shielding atmospheres
- Recommended for low alloyed steels with tensile strength up to 640 N/mm^2 , for example boiler plates, fine-grained steel, pipe and shipbuilding steels
- The high silicon content promotes a low sensitivity to surface impurities and contribute to smooth weld

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH

Pipe steels: P235 – P355N

Shipbuilding plates: A, B, D, E, AH32 – EH36

Fine-grained steels: S275 – S420, S460

CHEMICAL COMPOSITION:

C 0,08 Si 1,00 Mn 1,70 P <0,025 S <0,025

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -40°C [J]
>460	560 – 650	>22	>47

SUITABLE SHIELDING GASES (EN 439):

100% CO₂ (C1),

Ar + 18% CO₂ (M21),

CO₂ + Ar + O₂ (M22)

Welding parameters			Packing	
Φ	Current [A]	Voltage [V]	BS300 spool [kg]	Drum [kg]
0,8	60 – 180	18 – 24	15,0	250,0
1,0	90 – 300	19 – 32	15,0	250,0
1,2	130 – 360	19 – 35	15,0	250,0
1,6	200 – 240	22 – 36	15,0	250,0

MIGWELD Ni1

CLASSIFICATION:

EN ISO 14341-A: G3Ni1

ASME/AWS A- 5.18: ER 80 S-Ni1

DESCRIPTION:

- Solid copper coated welding wire with Ni for welding in gas shielding atmospheres
- Recommended for higher grade construction steels with tensil strength up to 685 N/ mm² and elements working in low temperatures

BASE MATERIAL:

EN: P355N1 – P460NL1

DIN, AISI:

St E 380 do St E 500

W St E 380 do W St E 500

T St E 380 do T St E 500

17Mn4, 19Mn5

CORTEN, Patinax

CHEMICAL COMPOSITION:

C 0,08 Si 0,80 Mn 1,50 Ni 1,10 P <0,025 S <0,025

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A _s [%]	Impact energy A _v -40°C [J]
440 – 510	560 – 630	22 – 30	>47

SUITABLE SHIELDING GASES (EN 439):

100% CO₂ (C1),

Ar + 18% CO₂ (M21),

CO₂ + Ar + O₂ (M22)

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD NiMo1

CLASSIFICATION:

EN ISO 14341-A: G3Ni1

ASME/AWS A- 5.18: ER 100 S-G

DESCRIPTION:

- Solid copper coated welding wire for welding in gas shielding atmospheres
- Recommended for fine grained steels with yield strength up to 550 N/mm²

BASE MATERIAL:

EN: P/S420N-S500NL, S620

DIN, AISI:

E St E 380 1.8911

E St E 490 1.8919

T St E 500 1. 8917

CHEMICAL COMPOSITION:

C 0,08 Si 0,70 Mn 1,20 Ni 1,10 Mo 0,30

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -40°C [J]
>540	>630	18	>47

SUITABLE SHIELDING GASES (EN 439):

Ar + 18% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD 2,5Ni

CLASSIFICATION:

EN ISO 14341-A: G2Ni2

ASME/AWS A- 5.18: ER 90 S-Ni2

DESCRIPTION:

- Solid copper coated welding wire for welding in gas shielding atmospheres
- Recommended for low alloyed, fine grained and higher strength steels working in low temperatures up to -60°C

BASE MATERIAL:

EN:

Fine grained steels: S255N – S380N, S255NL, 14Ni6

CHEMICAL COMPOSITION:

C 0,09 Si 0,50 Mn 1,10 Ni 2,45

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av -60°C [J]
>420	>570	22	>47

SUITABLE SHIELDING GASES (EN 439):

Ar + 18% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIG 75

CLASSIFICATION:

EN ISO 16834-A: 69 4M Mn3Ni1CrMo

ASME/AWS A- 5.28: ER 100 S-1

DESCRIPTION:

- Solid copper coated welding wire with Ni and Mo for welding in gas shielding atmospheres
- Recommended for fine grained steels with yield strength up to 690 N/mm²

BASE MATERIAL:

EN:

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH

Pipe steels: P235 – P355N

Shipbuilding plates: A, B, D, E, AH32 – EH36

Fine-grained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,08 Si 0,60 Mn 1,70 Cr 0,25 Ni 1,50 Mo 0,30

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -40°C [J]
>690	770 – 940	>17	>47

SUITABLE SHIELDING GASES (EN 439):

100% CO₂ (C1),

Ar + 18% CO₂ (M21),

CO₂ + Ar + O₂ (M22)

Welding parameters			Packing	
Φ	Current [A]	Voltage [V]	BS300 spool [kg]	Drum [kg]
0,8	50 – 170	16 – 22	15,0	250,0
1,0	80 – 260	18 – 28	15,0	250,0
1,2	120 – 330	20 – 32	15,0	250,0
1,6	200 – 380	22 – 35	15,0	250,0

MIGWELD NiCu

CLASSIFICATION:

EN ISO 16834-A: G Z Mn3Ni1Cu

ASME/AWS A- 5.18: ER 80 S-G

DESCRIPTION:

- Solid copper coated welding wire with Cu and Ni for welding in gas shielding atmospheres
- Recommended for corrosion resistant and medium alloyed steels with yield strength up to 460 N/mm² and low alloyed steels with tensile strength up to 685 N/mm²

BASE MATERIAL:

DIN, AISI:

Special construction steels: WT St 37, WT St 52,

CORTEN A B C

Patinox 37

RBH 35

Acor 37, Acor 50

HSB 37, HSB 55C

CHEMICAL COMPOSITION:

C 0,10 Si 0,90 Mn 1,50 Ni 0,50 Cu 0,50 P<0,025 S<0,025

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A _s [%]	Impact energy A _v -40°C [J]
430 – 530	540 – 640	22 – 30	>47

SUITABLE SHIELDING GASES (EN 439):

100% CO₂ (C1),

Ar + 18% CO₂ (M21),

CO₂ + Ar + O₂ (M22)

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD 890

CLASSIFICATION:

EN ISO 16834-A: G Mn4Ni2CrMo

ASME/AWS A- 5.18: ER 120 S-G

DESCRIPTION:

- Solid copper coated welding wire with Mn, Ni and Cr for welding in gas shielding atmospheres
- Recommended for high tensile fine grained steels with yield strength up to 890 N/mm²

BASE MATERIAL:

High tensile fine frained steels: S890QL, XABO 890, MICRAL 890

CHEMICAL COMPOSITION:

C 0,09 Si 0,80 Mn 1,80 Cr 0,31 Ni 2,20 Mo 0,5

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -60°C [J]
>885	>940	14	>47

SUITABLE SHIELDING GASES (EN 439):

Ar + 15 – 25% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD Mo

CLASSIFICATION:

EN ISO 21952-A: G Mo Si
EN ISO 14341-A: G2 Mo
DIN 8575: SG Mo

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated welding wire with Mo, for welding in gas shielding atmospheres
- Recommended for creep resistant steels working it the temperature up to 500°C

BASE MATERIAL:

EN:
Construction steels: S235–S355
Boiler plates: P235GH–P355GH, 16Mo3
Pipe steels: P235–P355N, 16Mo3
Shipbuilding plates: A, B, D, E, AH32–EH36
Fine grained steels: S275–S420

CHEMICAL COMPOSITION:

C 0,10 Si 0,60 Mn 1,15 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V -20°C [J]
>460	>560	22	>47

SUITABLE SHIELDING GASES (EN 439):

Ar + 18% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD CrMo

CLASSIFICATION:

EN ISO 21952-A: G CrMo 1 Si
 EN ISO 12070: G CrMo 1 Si
 DIN 8575: SG CrMo1

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated welding wire with Cr and Mo, for welding in gas shielding atmospheres
- Recommended for creep resistant steels working it the temperature up to 550°C

BASE MATERIAL:

EN:

Boiler plates: 13CrMo4-5

CHEMICAL COMPOSITION:

C 0,10 Si 0,60 Mn 1,00 Cr 1,20 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>305	>450	22	>100

SUITABLE SHIELDING GASES (EN 439):

Ar + 18% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD 2 CrMo

CLASSIFICATION:

EN ISO 21952-A: G CrMo 2 Si
EN ISO 12070: G CrMo 2 Si
DIN 8575: SG CrMo2

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated welding wire with Cr and Mo, for welding in gas shielding atmospheres
- Recommended for creep resistant steels working it the temperature up to 600°C

BASE MATERIAL:

EN:
Boiler plates: 10CrMo9-10

CHEMICAL COMPOSITION:

C 0,08 Si 0,60 Mn 0,90 Cr 2,45 Mo 1,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>355	>540	22	>80

SUITABLE SHIELDING GASES (EN 439):

Ar + 18% CO₂ (M21),

	Welding parameters				Packing
	Short arc		Spray arc		
Φ	Current [A]	Voltage [V]	Current [A]	Voltage [V]	BS300 spool [kg]
1,0	80 – 95	17 – 19	240 – 270	24 – 27	15,0
1,2	110 – 130	18 – 20	270 – 320	27 – 32	15,0

MIGWELD 308LSi

CLASSIFICATION:

EN ISO 14343-A: G 19 9 LSi

W.Nr. 1.4316

ASME/AWS A 5.9: ER 308 LSi

APPROVALS: TUV

DESCRIPTION:

- Solid welding wire for stainless, corrosion resistant steels
- Recommended for similar and ferritic steels with chromium composition up to 13% working in temperatures up to 350°C
- Welding material is oxidation resistant up to 800°C and ductile to -196°C

BASE MATERIAL:

DIN:

Corrosion resistan steels:

X5CrNi 18 9 1. 4301

X2CrNi 18 9 1.4306

X10CrNiNb18 9 1.4550

CHEMICAL COMPOSITION:

C < 0,025 Si 0,70 Mn 2,00 Cr 19,00 Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]	Impact energy A _V -196°C [J]
>320	550 – 650	30	>80	>32

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)

Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

MIGWELD 316LSi

CLASSIFICATION:

EN ISO 14343-A: G 19 12 3 LSi
W. Nr. 1.4430
ASME/AWS A.5.9.: ER 316 LSi

APPROVALS: TUV

DESCRIPTION:

- Solid welding wire for stainless, corrosion resistant steels
- Recommended for similar and ferritic steels with chromium composition up to 13% working in temperatures up to 350°C
- Welding material is oxidation resistant up to 800°C and ductile to -196°C

BASE MATERIAL:

DIN:

Corrosion resistan steels:
X5CrNiMo 18 10 1. 4401
X5CrNiMo 18 10 1. 4436

CHEMICAL COMPOSITION:

C < 0,025 Si 0,70 Mn 1,75 Cr 19,00 Ni 11,50 Mo 2,75

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]	Impact energy A _V -110°C [J]
>320	550 – 650	30	>80	>32

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)
Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

MIGWELD 309LSi

CLASSIFICATION:

EN ISO 14343-A: G 23 12 LSi

W. Nr. 1.4332

ASME/AWS A.5.9.: ER 309 LSi

APPROVALS: TUV

DESCRIPTION:

- Solid welding wire for similar wrought or cast stainless steels
- Suitable also for 18-8 steel, when significant corrosion is expected
- Especially recommended for dissimilar steels, such as 18-8 steel with carbon, low alloyed or mild steel

BASE MATERIAL:

High alloyed steels

High tensile steels

Austenitic – manganese steels

Difficult to weld steels

CHEMICAL COMPOSITION:

C < 0,025 Si 0,80 Mn 1,60 Cr 23,50 Ni 13,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>380	550 – 700	22	>40

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)

Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

MIGWELD 307Si

CLASSIFICATION:

EN ISO 14343-A: G 18 8 Mn

W. Nr. 1.4370

ASME/AWS A.5.9.: ~ER 307

DESCRIPTION:

- Solid austenitic welding wire
- Recommended for dissimilar austenitic – manganese and difficult to weld steels
- The joint is corrosion resistant, the weld metal is able to absorb high welding stresses
- Very good welding properties and excellent ductility

BASE MATERIAL:

High alloyed steels

High tensile steels

Austenitic – manganese steels

Difficult to weld steels

CHEMICAL COMPOSITION:

C 0,08 Si < 1,00 Mn 7,00 Cr 18,50 Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>380	560 – 660	35	>40

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)

Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

MIGWELD 310

CLASSIFICATION:

EN ISO 14343-A: G 25 20

W. Nr. 1.4842

ASME/AWS A.5.9.:ER 310

DESCRIPTION:

- Solid austenitic welding wire
- Recommended for heat resistant steels, pipes and castings with 25% of Cr and 20% of Ni
- Suitable also for heat resistant ferritic chromium steels which are not exposed for the sulfurs compound
- Weld materials is heat resistant up to 1200°C

BASE MATERIAL:

DIN, AISI:

Heat resistant steels:

X15 CrNi Si 20 12 1.4828

X15 CrNi Si 25 20 1.4841

X12 CrNi 25 21 1.4845

X10 CrAl 24 1.4762

CHEMICAL COMPOSITION:

C 0,12 Si 0,50 Mn 1,75 Cr 25,00 Ni 20,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V RT [J]
>300	540 – 640	30	>70

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)

Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

MIGWELD 312

CLASSIFICATION:

EN ISO 14343-A: G 29 9
 W. Nr. 1.4337
 ASME/AWS A.5.9.:ER 312

DESCRIPTION:

- Solid welding wire
- Recommended for dissimilar high carbon, spring and other difficult to weld steels
- Weld materials is crack resistant

BASE MATERIAL:

High alloyed steels
 High carbon steels
 Tool steels
 High tensile steels
 Austenitic – manganese steels
 Difficult to weld steels

CHEMICAL COMPOSITION:

C < 0,14 Si 0,40 Mn 1,75 Cr 30,50 Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V RT [J]
>540	740 – 850	18	>30

SUITABLE SHIELDING GASES (EN 439):

Ar + 1 – 3% O₂ (M11)
 Ar + 2,5% CO₂ (M13)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	BS300 spool [kg]
0,8	100 – 160	18 – 22	15,0
1,0	140 – 200	18 – 24	15,0
1,2	170 – 260	20 – 28	15,0
1,6	220 – 350	24 – 36	15,0

TIGWELD 2

CLASSIFICATION:

EN ISO 636-A: W42 4 W3Si1

DIN 8559: W SG2

ASME/AWS A- 5.18: ER 70 S-6

APPROVALS: UDT

DESCRIPTION:

- Solid copper coated TIG welding wire for universal use
- Recommended for mild steels in boilers and pipe constructions

BASE MATERIAL:**EN:**

Construction steels: S235 – S355

Boiler plates: P235GH – P355GH

Pipe steels: P235 – P355N

Fine-grained steels: S275 – S420

CHEMICAL COMPOSITION:

C 0,08	Si 0,90	Mn 1,50	P <0,025
--------	---------	---------	----------

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -40°C [J]
>420	500 – 640	>22	>47

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton boxes 5 or 25 kg

TIGWELD 3

CLASSIFICATION:

EN ISO 636-A: W46 4 W4Si1
DIN 8559: W SG3
ASME/AWS A- 5.18: ER 70 S-6

APPROVALS: UDT

DESCRIPTION:

- Solid copper coated TIG welding wire
- Recommended for steels with hightened tensile strength, for example in boilers or steel constructions

BASE MATERIAL:

EN:
Construction steels: S235 – S355
Boiler plates: P235GH – P355GH
Pipe steels: P235 – P355N
Fine-grained steels: S275 – S420, S460

CHEMICAL COMPOSITION:

C 0,08 Si 1,00 Mn 1,70 P <0,025

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av -40°C [J]
>460	530 – 680	>22	>47

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm
Length: 1000 mm

PACKING:

Carton boxes 5 or 2

TIGWELD Mo

CLASSIFICATION:

EN ISO 21952-A: W Mo Si

DIN 8575: SG Mo

ASME/AWS A- 5.28: ER 80 S-G

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated TIG welding wire with Mo
- Recommended for low alloyed and creep resistant steels in boilers and pipe constructions working at the temperature up to 500°C

BASE MATERIAL:**EN:**

Construction steels: S235–S355

Boiler plates: P235GH–P355GH, 16Mo3

Pipe steels: P235–P355N, 16Mo3

Shipbuilding plates: A, B, D, E, AH32–EH36

Fine grained steels: S275–S420

CHEMICAL COMPOSITION:

C 0,10	Si 0,60	Mn 1,15	Mo 0,50
--------	---------	---------	---------

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]
>460	560 – 720	22	>47

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton boxes 5 or 25 kg

TIGWELD CrMo

CLASSIFICATION:

EN ISO 21952-A-W CrMo 1 Si
DIN 8575: SG CrMo1
ASME/AWS A- 5.28: ER 80 S-G

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated TIG welding wire with Cr and Mo
- Recommended for low alloyed and creep resistant steels in boilers and pipe constructions working it the temperature up to 550°C
- Bruscato Faktor max. 12 ppm

BASE MATERIAL:

EN:
Boiler plates: 13CrMo4-5

CHEMICAL COMPOSITION:

C 0,10 Si 0,60 Mn 1,00 Cr 1,20 Mo 0,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20 [J]	Impact energy A _v -10°C [J]
>305	>450	22	>100	>47

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm
Length: 1000 mm

PACKING:

Carton boxes 5 or 25 kg

TIGWELD 2 CrMo

CLASSIFICATION:

EN ISO 21952-A: W CrMo 2 Si

DIN 8575: SG CrMo2

ASME/AWS A- 5.28: ER 90 S-G

APPROVALS: TUV, UDT

DESCRIPTION:

- Solid copper coated welding wire with Cr and Mo, for welding in gas shielding atmospheres
- Recommended for creep resistant steels working at the temperature up to 600°C

BASE MATERIAL:**EN:**

Boiler plates: 10CrMo9-10

CHEMICAL COMPOSITION:

C 0,08 Si 0,60 Mn 0,90 Cr 2,45 Mo 1,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -10°C [J]
>355	>540	22	>47

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton boxes 5 or 25 kg

TIGWELD 308LSi

CLASSIFICATION:

EN ISO 14343-A: W 19 9 LSi
W.Nr. 1.4316
ASME/AWS A 5.9: ER 308 LSi

APPROVALS: TUV

DESCRIPTION:

- Solid welding wire for stainless, corrosion resistant steels
- Recommended for similar and ferritic steels with chromium composition up to 13% working in temperatures up to 350°C
- Welding material is oxidation resistant up to 800°C and ductile to -196°C

BASE MATERIAL:

DIN:

Corrosion resistant steels:
X5CrNi 18 9 1. 4301
X2CrNi 18 9 1.4306
X10CrNiNb18 9 1.4550

CHEMICAL COMPOSITION:

C < 0,025 Si 0,70 Mn 2,00 Cr 19,00 Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation As [%]	Impact energy Av 20 [J]	Impact energy Av -196°C [J]
>320	550 – 650	30	>80	>32

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,0; 1,2; 1,6; 2,0; 2,4; 3,0 mm
Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

TIGWELD 316LSi

CLASSIFICATION:

EN ISO 14343-A: W 19 12 3 LSi
W. Nr. 1.4430
ASME/AWS A.5.9.: ER 316 LSi

APPROVALS: TUV**DESCRIPTION:**

- Solid welding wire for stainless, corrosion resistant steels
- Recommended for similar and ferritic steels with chromium composition up to 13% working in temperatures up to 350°C
- Welding material is oxidation resistant up to 800°C and ductile to -196°C

BASE MATERIAL:**DIN:**

Corrosion resistant steels:

X5CrNiMo 18 10 1. 4401
X5CrNiMo 18 10 1. 4436

CHEMICAL COMPOSITION:

C < 0,025 Si 0,70 Mn 1,75 Cr 19,00 Ni 11,50 Mo 2,75

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20 [J]	Impact energy A _v -110°C [J]
>320	550 – 650	30	>80	>32

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,0; 1,2; 1,6; 2,0; 2,4; 3,0 mm
Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

TIGWELD 309LSi

CLASSIFICATION:

EN ISO 14343-A: W 23 12 LSi
W. Nr. 1.4332
ASME/AWS A.5.9.: ER 309 LSi

DESCRIPTION:

- Solid welding wire for similar wrought or cast stainless steels
- Suitable also for 18-8 steel, when significant corrosion is expected
- Especially recommended for dissimilar steels, such as 18-8 steel with carbon, low alloyed or mild steel

BASE MATERIAL:

High alloyed steels
High tensile steels
Austenitic – manganese steels
Difficult to weld steels

CHEMICAL COMPOSITION:

C < 0,025 Si 0,80 Mn 1,60 Cr 23,50 Ni 13,50

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>380	550 – 700	22	>40

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm
Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

TIGWELD 307Si

CLASSIFICATION:

EN ISO 14343-A: W 18 8 Mn

W. Nr. 1.4370

ASME/AWS A.5.9.: ~ER 307

DESCRIPTION:

- Solid austenitic welding wire
- Recommended for dissimilar austenitic – manganese and difficult to weld steels
- The joint is corrosion resistant, the weld metal is able to absorb high welding stresses
- Very good welding properties and excellent ductility

BASE MATERIAL:

High alloyed steels

High tensile steels

Austenitic – manganese steels

Difficult to weld steels

CHEMICAL COMPOSITION:

C 0,08	Si < 1,00	Mn 7,00	Cr 18,50	Ni 9,00
--------	-----------	---------	----------	---------

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>380	560 – 660	35	>40

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

TIGWELD 310

CLASSIFICATION:

EN ISO 14343-A: W 25 20

W. Nr. 1.4842

ASME/AWS A.5.9.:ER 310

DESCRIPTION:

- Solid austenitic welding wire
- Recommended for heat resistant steels, pipes and castings with 25% of Cr and 20% of Ni
- Suitable also for heat resistant ferritic chromium steels which are not exposed for the sulfurs compound
- Weld materials is heat resistant up to 1200°C

BASE MATERIAL:**DIN, AISI:**

Heat resistant steels:

X15 CrNi Si 20 12 1.4828

X15 CrNi Si 25 20 1.4841

X12 CrNi 25 21 1.4845

X10 CrAl 24 1.4762

CHEMICAL COMPOSITION:

C 0,12	Si 0,50	Mn 1,75	Cr 25,00	Ni 20,00
--------	---------	---------	----------	----------

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>300	540 – 640	30	>70

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

TIGWELD 312

CLASSIFICATION:

EN ISO 14343-A: W 29 9

W. Nr. 1.4337

ASME/AWS A.5.9.:ER 312

DESCRIPTION:

- Solid welding wire
- Recommended for dissimilar high carbon, spring and other difficult to weld steels
- Weld materials is crack resistant

BASE MATERIAL:

High alloyed steels

High carbon steels

Tool steels

High tensile steels

Austenitic – manganese steels

Difficult to weld steels

CHEMICAL COMPOSITION:

C < 0,14

Si 0,40

Mn 1,75

Cr 30,50

Ni 9,00

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _V 20 [J]
>540	740 – 850	18	>30

SUITABLE SHIELDING GASES (EN 439):

TIG – Ar (I1)

ROD SIZES:

Φ 1,6; 2,0; 2,4; 3,0 mm

Length: 1000 mm

PACKING:

Carton tubes 5 kg in 25 kg carton boxes

COREFIL 113R

CLASSIFICATION:

EN ISO 17632-A: T 46 2 P C/M 1 H5

ASME/AWS A-5.20 : E 71 T-1M H4

DESCRIPTION:

- Rutile cored seamless wire
- Excellent welding properties
- Very efficient in the root pass against ceramic backing
- Stable arc with less spatters
- Very good weldability in all positions

BASE MATERIAL:

EN:

Construction steels: S185, S235 – S355

Boiler plates: P235GH, P265GH, P295GH, P355GH

Pipe steels: P235T1/T2 – P355N, L210 – L485

Shipbuilding plates: A, B, D, E, AH32 – EH36

Fine-grained steels: S255 – S460

CHEMICAL COMPOSITION:

C 0,05 Si 0,50 Mn 1,30 P 0,01 S <0,01

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]
>460	530 – 680	>22	>47

SUITABLE SHIELDING GASES: CO₂: 18 – 25 l/min

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	130 – 250	22 – 28	12,5
1,6	200 – 400	25 – 34	12,5

COREFIL 110M

CLASSIFICATION:

EN ISO 17632-A: T 46 4 M M 1 H5

ASME/AWS A-5.20 : E 71 T-1M H4

DESCRIPTION:

- Metal cored seamless wire
- For automatical and manual welding
- Stable arc, very good bead shape, no slag and small spatter
- Good restricking characteristics
- Very good mechanical properties in low temperatures

BASE MATERIAL:

EN:

Construction steels: S185, S235 – S355

Boiler plates: P235GH, P265GH, P295GH

Pipe steels: P235T1/T2 – P355N, L210 – L485

Shipbuilding plates: A, B, D, E, AH32 – EH36

Fine-grained steels: S255 – S460

CHEMICAL COMPOSITION:

C 0,05 Si 0,70 Mn 1,50 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]	Impact energy A _v -40°C [J]
>460	530 – 680	>27	>100	>60

SUITABLE SHIELDING GASES: Ar + 8–25% CO₂: 18 – 25 l/min

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	100 – 300	18 – 30	12,5
1,6	150 – 400	22 – 34	12,5

COREFIL 131B

CLASSIFICATION:

EN ISO 17632-A: T 42 4 B C/M 3 H5

ASME/AWS A-5.20 : E 70 T-5 H4

DESCRIPTION:

- Basic flux cored wire with slag for CO₂ and Ar –CO₂ mix
- For welding construction, pipe steels, shipbuilding plates, tanks etc
- Thanks to basic slag in combination with very low hydrogen content the weld metal is extremely crack resistant
- Suitable also for high carbon steels and mixed base metal combinations
- Perfect for production, repair welding and also buffer layer
- Very good mechanical properties, good weldability, low spatter, easy slag removal

BASE MATERIAL:

EN:

Construction steels: S185, S235 – S355

Boiler plates: P235GH, P265GH, P295GH

Pipe steels: P235T1/T2 – P355N, L210 – L485

Shipbuilding plates: A, B, D, E, AH32 – EH36

Fine-grained steels: S255 – S460

CHEMICAL COMPOSITION:

C 0,05 Si 0,60 Mn 1,40 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v -20°C [J]	Impact energy A _v -40°C [J]
>420	500 – 630	>20	>100	>60

SUITABLE SHIELDING GASES: Ar + 8 – 25% CO₂ 18 – 25 l/min

WELDING CURRENT: DC +

HYDROGEN CONTENT: <5ml/100g



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	150 – 250	20 – 27	15,0
1,6	200 – 350	24 – 34	15,0

COREFIL MoR

CLASSIFICATION:

EN ISO 17634-A: T Mo P M 1 H5

ASME/AWS A-5.29 : E 81 T1-A1 H4

DESCRIPTION:

- Metal cored without slag for Ar-CO₂ mix
- Recommended for welding vessels constructions, mechanical engineering and pipe work
- Good arc restriking even with cold wire tip
- Suitable for automatical welding
- Excellent gap bridging for root welding
- Very good mechanical properties in low temperatures

BASE MATERIAL:

EN:

Boiler plates: P235GH , P265GH, P295GH, 16Mo3

Pipe steels: P235T1/T2 – P355N, L210 – L485

Fine-grained steels: S255 – S460

CHEMICAL COMPOSITION:

C 0,05 Si 0,50 Mn 1,30 Mo 0,50 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>470	550 – 650	>22	>70

WELDING CURRENT: DC +



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	130 – 250	22 – 28	15,0
1,6	200 – 400	25 – 34	15,0

COREFIL MoB

CLASSIFICATION:

EN ISO 17634-A: T Mo B M 3 H5

ASME/AWS A-5.29 : E 80 T5-G H4

DESCRIPTION:

- High – basicity flux cored wire with slag for CO₂ and Ar – CO₂ mix
- Recommended for shipbuilding, vessels and steel constructions, mechanical engineering and pipe work
- Thanks to basic slag in combination with very low hydrogen content the weld metal is extremely crack resistant
- Suitable for economic joining of high temperature resistant Mo – steels up to 500°C
- Low spatter

BASE MATERIAL:

EN:

Boiler plates: P235GH, P265GH, P295GH, 16Mo3

Pipe steels: P235T1/T2 – P355N, L210 – L485

Fine-grained steels: S255 – S460

CHEMICAL COMPOSITION:

C 0,05 Si 0,30 Mn 1,40 Mo 0,50 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>470	550 – 650	>22	>120

WELDING CURRENT: DC +



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	150 – 250	20 – 27	15,0
1,6	200 – 350	24 – 34	15,0

COREFIL CrMoB

CLASSIFICATION:

EN ISO 17634-A: T CrMo B M 3 H5

ASME/AWS A-5.29 : E 80 T5-B2 H4

DESCRIPTION:

- High – basicity flux cored wire with slag for CO₂ and Ar – CO₂ mix
- Recommended for shipbuilding, vessels and steel constructions, mechanical engineering and pipe work
- Thanks to basic slag in combination with very low hydrogen content the weld metal is extremely crack resistant
- Suitable for economic joining of high temperature resistant CrMo – steels up to 550°C
- Low spatter

BASE MATERIAL:

EN:

Boiler plates: 13CrMo4-5

Cast steels: G17CrMo5-5, G22CrMo5-4

CHEMICAL COMPOSITION:

C 0,05 Si 0,30 Mn 1,40 Cr 1,10 Mo 0,50 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 20°C [J]
>460	550 – 740	>20	>80

WELDING CURRENT: DC +



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	150 – 250	20 – 27	15,0
1,6	200 – 350	24 – 34	15,0

COREFIL 2CrMoB

CLASSIFICATION:

EN ISO 17634-A: T CrMo2 B M 3 H5

ASME/AWS A-5.29 : E 90 T5-G H4

DESCRIPTION:

- High – basicity flux cored wire with slag for CO₂ and Ar – CO₂ mix
- Recommended for pressure vessels, chemical apparatus, steam and turbine construction
- Thanks to basic slag in combination with very low hydrogen content the weld metal is extremely crack resistant
- Suitable for economic joining of high temperature resistant and compressed hydrogen resistant 2,25Cr1Mo steels

BASE MATERIAL:

EN:

Boiler plates: 10CrMo9-10, 12CrMo9-10

CHEMICAL COMPOSITION:

C 0,07 Si 0,30 Mn 1,00 Cr 2,30 Mo 1,10 P <0,015 S <0,015

MECHANICAL PROPERTIES:

Yield strength Rp 0,2% [N/mm ²]	Tensile strength Rm [N/ mm ²]	Elongation A ₅ [%]	Impact energy A _v 0°C [J]	Impact energy A _v -15°C [J]
>400	500 – 680	>20	>100	>80

WELDING CURRENT: DC +



Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	150 – 250	20 – 27	15,0
1,6	200 – 350	24 – 34	15,0

COREWELD A300

CLASSIFICATION:

EN ISO 14700: T Fe 1

DIN 8555: MSG1-250 (300)

DESCRIPTION:

- Flux cored wire for hardfacing resistant for high impact and wear
- Produces low alloyed hardfacing deposit
- The interpass temperature should be max. 250°C
- The deposit is forgeable and can be treated with cutting tools, can be also annealed without changing his structure
- Recommended for: guide rolls, rails, caterpillars track rollers, wheel rims, coupling, shafts

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,10

Si 0,50

Mn 2,00

Cr 1,50

Mo 0,40

MECHANICAL PROPERTIES:Hardness (20°C)
[HB]

225 – 300

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):CO₂ (M21)**WELDING CURRENT: DC (+/-)**

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	130 - 250	23 – 28	15,0
1,6	220 – 420	26 – 32	15,0

COREWELD A350

CLASSIFICATION:

EN ISO 14700: T Fe 1

DIN 8555: MSG1-350

DESCRIPTION:

- Rutile medium alloyed flux cored wire for hardfacing of steels in medium hardness range
- Produces deposit which is tough, free of porosity and cracks, highly resistant to deformation and impact
- The interpass temperature should be max. 250°C
- The deposit can be treated with cutting tools
- Recommended for: wheels for mine truck, crane wheels, rollers, wobblers, caterpillars track rollers, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,23 Si 0,60 Mn 1,50 Cr 1,60

MECHANICAL PROPERTIES:

Hardness (20°C)

[HB]

325 – 375

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):

C O₂ (M21)

WELDING CURRENT: DC (+/-)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	130 – 250	23 – 28	15,0
1,6	220 – 420	26 – 32	15,0

COREWELD A400

CLASSIFICATION:

EN ISO 14700: T Fe 3

DIN 8555: MSG 6-GF-40

DESCRIPTION:

- Flux cored wire for hardfacing resistant for very high impact and low abrasion
- The number of layers can be done as necessary
- The interpass temperature should be max. 250°C
- The deposit is forgeable and can be treated with cutting tools, can be also annealed without changing his structure
- Recommended for: cable rolls, rails, coupling, back-up rolls of caterpillars crane, wheel rims, shafts, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,15

Si 0,50

Cr 2,50

Mo 0,40

MECHANICAL PROPERTIES:

Hardness (20°C)

[HB]

App. 400

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):

Ar (l1)

99%Ar + 1,0% O₂ (M13)**WELDING CURRENT: DC (+/-)**

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD A600

CLASSIFICATION:

EN ISO 14700: T Fe 2

DIN 8555: MSG 6-GF-60P

DESCRIPTION:

- Basic flux cored wire for highly wear resistant hardfacing
- The number of layers can be done as necessary
- The deposit is tough, without cracks and porosity, resistant to shocks, impact and moderate abrasion
- The deposit is only machinable by grinding
- Recommended for parts exposed on abrasion, impact and compressive loads, f.ex. crusher jaws, sand pumps, dredge pump parts, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,50 Si 0,60 Mn 1,50 Cr 5,50 Mo 0,50

MECHANICAL PROPERTIES:

Hardness (20°C)
[HRC]

57 – 60

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):

CO₂ (M21)

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0

COREWELD HT38

CLASSIFICATION:

DIN 8555: MSG 1-GF-40-PT

DESCRIPTION:

- Flux cored wire for hardfacing resistant for very high impact and thermal shock
- Recommended for surfacing of hot working tools such as press dies, hot forging dies, Impactor dies, etc.
- The interpass temperature should be max. 250°C
- The number of layers can be done as necessary

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,10 Si 0,50 Mn 0,60 Cr 10,00 Ni 0,80 Mo 2,00 W 2,20 Ti 0,20

MECHANICAL PROPERTIES:

Hardness (20°C)

[HRC]

38 – 44

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):

Ar (I1), (M12), 99%Ar + 1,0% O₂ (M13)

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD HT52

CLASSIFICATION:

DIN 8555: MF 1-GF-55-PT

DESCRIPTION:

- Flux cored wire for hardfacing resistant for very high impact and thermal shock
- Recommended for surfacing of hot working tools such as press dies, hot forging dies, Impactor dies, etc.
- The interpass temperature should be max. 250°C
- The number of layers can be done as necessary

BASE MATERIAL:

Steel
Cast steels

CHEMICAL COMPOSITION:

C 0,25 Si 0,70 Mn 0,60 Cr 10,00 Ni 1,00 Mo 3,00 W 1,40 V 0,70 Ti 0,30

MECHANICAL PROPERTIES:

Tensile strength	Hardness (20°C)
Rm [N/ mm ²]	[HRC]
1800 – 2000	52 – 55

The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):

Ar (I1), (M12), 99%Ar + 1,0% O₂ (M13)

WELDING CURRENT: DC (+/-)

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD HT58

CLASSIFICATION:

DIN 8555: MF 6-GF-55-PT

DESCRIPTION:

- Flux cored wire
- Deposit is heat and thermal shock resistant
- The interpass temperature should be max. 250°C
- Recommended for maintenance of hot working tools
- Application: impact dies, hot forging dies, blanking dies, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 0,32 Si 0,70 Mn 0,60 Cr 5,70 Ni 0,50 Mo3,00 W 3,00 V 0,70 Ti 0,30

MECHANICAL PROPERTIES:

Tensile strength Hardness (20°C)

R_m [N/mm²] [HRC]

1800 – 2000 52 – 54

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

SUITABLE SHIELDING GASES (EN 439):Ar (I1), (M12), 99%Ar + 1,0% O₂ (M13)**WELDING CURRENT: DC +**

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD A55

CLASSIFICATION:
DIN 8555: MF 10-60-GR

- DESCRIPTION:**
- Hardfacing flux cored wire which produces deposit on the Cr carbides basis
 - Very good resistance for abrasion and medium impact
 - The best results are achieved in the second layer
 - The deposit can't be heat treated and machined
 - Application: mixer parts, pumps, conveyers screws etc.

BASE MATERIAL:
Steel
Cast steels

CHEMICAL COMPOSITION:
C 4,80 Si 1,00 Cr 28,0 B +

MECHANICAL PROPERTIES:

Hardness (20°C)
[HRC]

55 – 59

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD A62

CLASSIFICATION:

DIN 8555: MF 10-60-GR

DESCRIPTION:

- Hardfacing flux cored wire which produces stainless deposit on the Cr carbides basis
- Very good resistance for abrasion and medium impact
- The best results are achieved in the second layer, maximum layer thickness 10 mm
- The deposit can't be heat treated, forged or machined
- Application: pipes, mixer parts etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 5,50

Si 1,20

Cr 26,0

B +

MECHANICAL PROPERTIES:

Hardness (20°C)

[HRC]

App. 62

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD A63

CLASSIFICATION:
DIN 8555: MF 10-GF-65-GZ

- DESCRIPTION:**
- Hardfacing flux cored wire
 - The deposit is resistant for high abrasion and high temperatures
 - The best results are achieved in the second layer, maximum layer thickness 8 mm
 - The deposit can't be heat treated, forged or machined
 - Application: scrapers, mixer parts, brick and mineral industry, etc.

BASE MATERIAL:
Steel
Cast steels

CHEMICAL COMPOSITION:

C 3,8	Cr 22,0	V 0,80	W 0,80	B 1,00
-------	---------	--------	--------	--------

MECHANICAL PROPERTIES:

Hardness (20°C) [HRC]	Hardness (400°C) [HRC]	Hardness (600°C) [HRC]	The hardness of the deposit depends on the chemical composition of base material and relevant welding conditions.
App. 62	App. 53	App. 47	

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

COREWELD A64

CLASSIFICATION:

DIN 8555: MF 10-GF-65-G

DESCRIPTION:

- High C, Cr, Nb and B alloyed hardfacing flux cored wire with special carbides in extreme hardness
- The deposit is resistant for high abrasion The best results are achieved in the second layer, maximum layer thickness 8 mm
- On old surfaces we recommend the buffer layer of COREWELD A200 or A250
- Application: coal, steal, mineral and cement industry, fan blades, bucket tith and lips, etc.

BASE MATERIAL:

Steel

Cast steels

CHEMICAL COMPOSITION:

C 5,4 Si 1,10 Cr 22,0 Nb 7,00 B +

MECHANICAL PROPERTIES:

Hardness (20°C)

[HRC]

App. 63

The hardness of the deposit depends on
the chemical composition of base material
and relevant welding conditions.

WELDING CURRENT: DC +

Welding parameters			Packing
Φ	Current [A]	Voltage [V]	Spool [kg]
1,2	120 – 220	19 – 22	15,0
1,6	160 – 260	20 – 26	15,0
2,0	220 – 280	22 – 27	15,0

METALWELD



Metalweld Fiprom Polska Spółka z o.o.

ul. Mikołajczyka 57, 41-200 Sosnowiec

Polska • Poland

www.metalweld.pl

export@metalweld.pl

phone: +48 32 263 11 14

phone: +48 32 297 75 50

fax: +48 32 297 75 88