



Discover the best welding with **ANKA**



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ANKA WELDING CO.

Our company has been in various construction sectors since 2002. We presented our first product under the brand "ANKA WELDING MATERIALS". ANKA Company has been established in partnership with a foreign producer since 2014. The main feature of our materials is the high quality and competitive price. Day by day, we increase our annual production capacity and market share in Turkey and around the World.



E 6010

CLASSIFICATION:

AWS/SFA 5.1 E6010; OS 814: EC4310X, EN 449: E 3522C225; DIN 1913: E4343C4; ISO 2560: E433C4

CHARACTERISTICS:

A medium coated, all position, cellulosic electrode with a forcefull penetrating arc for pipe welding suitable for croos-country pipe lines for root, filler and capping passes using down-hand wleding technique.

Bacause of the forceful arc, the electrode is recommended for deposing root run in 5G and 6G position during construction of in plant pipelines.

Weld metal is highly ductile and of X-ray quality.

TYPICAL USES:

- Pipe Lines, for depositing root run in the in-plant pipe lines in 5G & 6G position.
- For Cross-country pipeline, root, filler & capping passes.
- Pipe Steels API 5LX-grade 42-56
- Specialy suited for pressure pipelines which cannot be welded form inside.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.14	0.30	0.10	0.03	0.03
max	0.60	0.40	max	max

MECHANICAL PROPERTIES (TYPICAL)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact Value	
			Temp	Joules
460	390	22	-30°C	47

RECOMMENDED CURRENT AND PACKING DATA:

SIZE (mm)	LENGTH (mm)	AMPS DC (+)	PACKING/BOX (Kg)
2.50	350	50-80	2 X 5 = 10
3.15/3.20	350	80-130	2 X 5 = 10
4.00	350	110-160	2 X 5 = 10
5.00	350	160-250	2 X 5 = 10

E 6013

CLASSIFICATION:

AWS/SFA 5.1: E 6013, IS: 814-2004:
ER-4211X BS: E4322R21, DIN: E 4322R322

DESCRIPTION:

An extruded rutile-based, medium heavy coated electrode.

CHARACTERISTICS:

It is weld able in all positions with minimum spatter. It has excellent striking and restricting properties. The weld bead is uniformly rippled and shining. The slag is compact, uniform and easy to remove and deposited weld metal is of radiographic quality.

TYPICAL USES:

- Suitable for radiographic quality welding on critically stressed joints.
- Applicable for repair welding / surfacing of naval steels, boiler steels and structural steels.
- Widely used in welding of steel structures, heavy-duty boilers and pressure vessels, heat exchanges, ships and barges, pipelines, storage tanks, bridges, railway coaches etc.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.10	0.35	0.15	0.03	0.03
max	0.60	0.50	max	max

MECHANICAL PROPERTIES (TYPICAL)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact Value	
			Temp	Joules
475	408	25.5	0°C	66

RECOMMENDED CURRENT AND PACKING DATA:

SIZE (mm)	LENGTH (mm)	AMPS AC/DC (+/-)	PACKING/BOX (PCS)	WEIGHT/1000 Pcs (Kg)
2.50	350	60-85	225 X 4 = 900	18.89
3.15/3.20	350	95-130	120 X 4 = 480	29.58
3.15/3.20	450	95-130	120 X 4 = 480	39.17
4.00	450	130-180	80 X 4 = 320	59.38
5.00	450	200-240	50 X 4 = 200	94.00
6.30	450	250-320	30 X 4 = 120	145.0

E 7014

CLASSIFICATION:

AWS/SFA 5.1: E7014 , IS : 814 1991:
ERR-5222-XJ, BS:E4332 R R13056,
DIN : E5122AR11120

CHARACTERISTICS:

An extruded heavy coated, iron powder, rutile based all position electrode. The Electrode is usable in all position including vertical down. It gives a very smooth arc and low spatter characterized by ease of operation in all positions. Easy striking and restriking.

Welding speed is high with deep penetration due to addition of Iron Powder. The deposition efficiency is approximately 130%. Slag is compact and easily detachable. The deposited weld metal is of radiographic quality.

TYPICAL APPLICATION:

- For welding heavy structural steel as in storage tanks, ship building, boilers, pressure vessels, building structures, machinery parts, truck frames and bodies.
- Used for repairing steel castings.bodies.
- Used for repairing steel castings.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.10	0.40 0.65	0.14 0.30	0.030 max	0.030 max

MECHANICAL PROPERTIES (TYPICAL)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact Value	
			Temp	Joules
510 600	430 500	22-28	0°C	47-88

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS AC/DC (+/-)	PACKING/BOX (PCS)
2.50	350	70-105	150 X 4 = 600
3.15	450	100-140	100 X 4 = 400
4.00	450	140-190	60 X 4 = 240
5.00	450	180-240	40 X 4 = 160
6.30	450	220-300	25 X 4 = 100

E 7015

CLASSIFICATION:
AWS A 5.1 E7015

DESCRIPTION:

Welders friendly heavy coated basic type, hydrogen-controlled electrode.

CHARACTERISTICS:

Weld able in all positions (F.H.V.O). Welding technique including arc striking/restricking calls for practical experience for best result. The bead appearance is smooth and the slag is compact, thick and easily detachable. The welds are of radiographic quality.

TYPICAL USES:

- For radiographic quality welding of highly stressed crack sensitive Joints in steel structures, ship building, heavy duty boilers and pressure vessels, bridges, storage tanks, high pressure pipelines etc.
- Recommended for higher carbon & higher sulphur steels, which are susceptible to hydrogen induced cracking.

DIFFUSIBLE HYDROGEN:

Max 4ml/100g of deposited weld metal.

ASME IX QUALIFICATION:

QW- 432 F-NO 4 QW- 442 A-NO 1

REDRYING TEMPERATURE:

250° C/ 2hrs



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.10 max	1.25 max	0.90 max	0.03 max	0.03 max
Ni	Cr	Mo	V	Mn+Ni+Cr +Mo+V
0.30 max	0.20 max	0.30 max	0.08 max	1.50 max

MECHANICAL PROPERTIES (TYPICAL)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact Strength	
			Temp	Joules
490 Min	400 Min	24-30	27°C	120-200
			0°C	100-180
			-20°C	80-160
			-30°C	60-140

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS AC/DC (+)	PACKING/BOX (Kg)
2.50	350	60-85	2 X 6 = 12Kg
3.15/3.20	450	100-130	2 X 6 = 12Kg
4.00	450	140-180	2 X 6 = 12Kg
5.00	450	180-220	2 X 6 = 12Kg

E 7016

CLASSIFICATION:

AWS/SFA 5.1: E7016 IS: EB5224H3X BS: E 5144B24 (H), DIN: 5144B1026

DESCRIPTION:

An extruded, heavy coated, hydrogen-controlled electrode.

CHARACTERISTICS:

Weldable in all positions except vertical down. Welding technique including arc striking/restricting calls for practical experience for best result. The bead appearance is fine with uniform ripples and the slag is compact, thick and easily detachable.

TYPICAL APPLICATION:

For radiographic quality welding of highly stressed joints in steel structures, heavy duty boilers and pressure vessels, railway wagons, coaches and trailers etc.

- Also for maintenance welding/surfacing of cast steel/fine grained/heat treated steel and wrought steel.
- Excellent for welding of higher carbon and higher sulphur steel which are susceptible to hydrogen induced cracking.
- Recommended for welding steels of unknown composition.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.10 max	1.25 max	0.90 max	0.03 max	0.03 max
Ni	Cr	Mo	V	Mn+Ni+Cr +Mo+V
0.30 max	0.20 max	0.30 max	0.08 max	1.75 max

MECHANICAL PROPERTIES (TYPICAL)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	Impact Value	
			Temp	Joules
510- 610	440- 540	24-30	27°C	120-210
			0°C	100-180
			-20°C	90-160
			-29°C	50-125

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS AC/DC (+)	PACKING/BOX (PCS)	WEIGHT/1000 PCS (Kg)
3.15/3.20	450	80-130	120 X 4 = 480	37.08
4.00	450	110-180	70 X 4 = 280	57.57
5.00	450	150-220	55 X 4 = 220	96.00

E 7018

CLASSIFICATION:

AWS/SFA 5.1: E7018, IS 814: EB5426H3JX,
DIN: 5144B1026, BS EN ISO 2560:2009

DESCRIPTION:

Welder's friendly heavy coated basic type, hydrogencontrolled, iron powder electrode with high deposition efficiency

CHARACTERISTICS:

- Weld able in all positions (F.H.V.O). Welding technique including arc striking/restricting calls for practical experience for best result.
- The bead appearance is smooth and the slag is compact, thick and easily detachable. Deposition efficiency of weld metal is approx. 115%. The welds are of radiographic quality.

TYPICAL APPLICATIONS:

- For radiographic quality welding of highly stressed crack sensitive Joints in steel structures, ship building, heavy duty boilers and pressure vessels, bridges, storage tanks, high pressure pipelines etc.
- Recommended for higher carbon & higher sulphur steels, which are susceptible to hydrogen induced cracking.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.10 max	0.80- 1.60	0.75 max	0.03 max	0.03 max
Ni	Cr	Mo	V	Mn+Ni+Cr +Mo+V
0.30 max	0.20 max	0.30 max	0.08 max	1.50 max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact Strength	
			Temp	Joules
510 Min	440 min	24-30	27°C	120-200
			0°C	100-180
			-20°C	80-160
			-30°C	60-140

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS AC(70 OCV) /DC (+)	PACKING/BOX (PCS) (Domestic Pkg)
2.50	350	60-85	150 X 4 = 600
3.15/3.20	450	100-130	100 X 4 = 400
4.00	450	130-180	65 X 4 = 260
5.00	450	160-230	45 X 4 = 180
6.30	450	220-280	25 x 4 = 120

E 316L

CLASSIFICATION:

AWS/SFA 5.4: E 316L-16IS 5206: E19.12.2 LR16

CHARACTERISTICS:

A medium heavy coated rutile type stainless steel electrode depositing low carbon 18/13/2.5 Mo austen stainless steel weld metal. Deposited weld metal has very high resistance to hot cracking, chemical corrosion upto 800oC and stress corrosion cracking. Molybdenum imparts resistance corrosion of reducing nature. The deposited weld metal is of radiographic quality.

TYPICAL APPLICATIONS:

- Suitable for welding stainless steels extra low carbon or stabilised by Titanium or Niobium such as AISI grades 316L, 317L and 318, S.S. clad pleas, chemical plants, paint industries.
- For welding stainless steel of 18/8/3 type as represented by AISI grades 316L, 317L & 318..

REDRYING:

250oC/2 hrs.Max 5 cycles, 10 hr. total.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.0	0.50 2.50	0.9 max	0.03 max	0.04 max
Cr	Ni	Mo	Cu	
17.0 20.0	11.0 14.0	2.0 3.0	0.75 max	

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	ELN (%) (L=4D)	Impact Value	
		Temp	Joules
490 Min	20-40	27°C	70-120

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS AC(70 OCV) /DC (+)	PACKING/BOX (PCS) (Domestic Pkg)
2.50	350	60-80	2 x 5 = 10 Kg
3.15	350	80-110	2 x 5 = 10 Kg
4.00	350	110-140	2 x 5 = 10 Kg
5.00	350	140-180	2 x 5 = 10 Kg

UTP 83 FN

CLASSIFICATION:

EN ISO 1071 AWS A5.15 E C Nife-11 E
NiFe-CI

Low heat input electrode for different grades of cast iron.

APPLICATION:

Joining, repairing, and surfacing of all cast iron components, nodular, malleable grey cast iron; for building up, overlaying and for filling up porosity in castings.

CHARACTERISTICS:

- Highly crack resistant electrode with soft and stable arc.
- All position electrode, with smooth rippled bead and no under cuts.
- Deposited weld metals is machinable.

APPLICATION TECHNIQUE:

- Remove casting skin from the welding area.
 - For thicker sections, double-U-preparation is recommended.
 - Restrike on weld and not on parent metal.
- Hold the electrode vertically.



TYPICAL ANALYSIS IN %

C	Ni	Fe
1.3	55,0	balance

UTS: 36-48 Kg/mm

HARDNESS: 150-190 HB

WELDING CURRENT: AC/DC (-)

PACKING SPECIFICATION

SIZE (mm)	CURRENT CONDITION
2.50	50-80
3.15	60-110
4.00	80-120
5.00	100-170

ER 316L

SPECIFICATIONS:

AWS 5.9: ER316L BS2901-90 316S92,
DIN8556-86 WSGX2CrNiMo 19.1

CHARACTERISTICS:

Getig 316L is intended for welding the low carbon, molybdenum alloyed acid resisting 316L austenitic stainless steels of similar composition. The deposited weld metal has improved resistance to general corrosion and pitting resistance in marine and industrial environments.

APPLICATIONS:

- Widely used in chemical process plant.
- Suitable for welding ASTM 316 / 316L grades as well as Nb or Ti stabilized stainless steels provided service temperatures for structural work are below 400°C.

SHIELDING GAS:

Pure Argon 99.99% 6-12 l/min.

FERRITE CONTENT IN THE WELD METAL:

3-8 FN.

WELDING CURRENT:

DC (-)

CORROSION RESISTANCE:

Good resistance to general and intergranular corrosion in the more severe environments. For e.g. hot dilute acids. Good resistance to chloride pitting corrosion.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	Cr	P
0.03 max	1.0 2.5	0.30 0.65	18 20	0.50 max
Ni	Mo	S	P	
11 14	2.0 3.0	0.025 max	0.030 max	

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact	
			Temp	Joules
550 650	340 480	32-42	0°C	50-100

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	PACKING/BOX (Kgs)
1.6	1000	5 Kg
2.00	1000	5 Kg
2.40/2.50	1000	5 Kg
3.15/3.20	1000	5 Kg

ER 316LSi

Alloy ER316LSi Welding data

Weld Process :

Used for Mig, Tig & Submerged arc

Deposited All Weld Metal Properties

Data is typical for ER316LSi weld metal deposited by mig using Argon+2% oxygen and Tig using 100% Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.



AWS Chemical Composition Requirements

C	Si	Mn	Cr	Ni	P	S	Mo	Cu
0.03	0.65	1.0	18.0	11.0	0.030	0.030	2.00	0.75
max	1.00	2.50	20.0	14.0	max	max	3.00	max

Deposited Chemical Composition % (Typical)

C	Si	Mn	P	S	Cr	Ni	Mo
0.014	0.35	1.65	0.011	0.009	18.80	12.25	2.55

Application

ER-316LSi affords the same characteristics as 316L. The high silican alloys better are stability along with minimal post-weld grinding . The low carbon in the weld metal gives excellent assurance against inter-granular corrosion.

Mechanical Properties (R.T.)

Yield strength 408 MPa
Tensile strength 625 MPa
Elongation 40%
Reduction of area 67%
Impact value -196°C (35-58 Joules)

Type of Filler wire

GMAW " Mig Filler wire"

Diameter Range

0.80-1.6mm
0.030"-1/16"

GTAW " Tig Process "

Diameter Range

1.60-4.00mm
1/16"-5/32"

Submerged Arc Welding

Diameter Range

1.60-4.00mm
1/16"-5/32"

ER 308L

Alloy ER308L Welding data

Weld Process:

Used for Mig, Tig & Submerged arc

Deposited All Weld Metal Properties:

Data is typical for ER308L weld metal deposited by mig using Argon+2% oxygen and Tig using 100% Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.



AWS Chemical Composition Requirements

C	Si	Mn	Cr	Ni	P	S	Mo	Cu
0.030	0.30	1.0	19.50	9.0	0.030	0.030	0.75	0.75
max	0.65	2.50	22.0	11.0	max	max	max	max

Deposited Chemical Composition % (Typical)

C	Si	Mn	P	S	Cr	Ni
0.02	0.32	1.7	0.011	0.009	20	10

Application:

ER308L has the same analysis as type 308 except the carbon content has been held to a maximum of .03% to reduce the possibility of inter-granular carbide precipitation. Ideal for welding Types 304L, 321 and 347 stainless steel. This is a suitable wire for applications at cryogenic temperatures.

Mechanical Properties (R.T.):

Yield strength	390 MPa
Tensile strength	600 MPa
Elongation	38%
Reduction of area	60%
Impact value	-196°C (35-55 Joules)

Type of Filler wire

GMAW " Mig Filler wire"

Diameter Range

0.80-1.6mm

0.030"-1/16"

GTAW " Tig Process "

Diameter Range

1.60-4.00mm

1/16"-5/32"

Submerged Arc Welding

Diameter Range

1.60-4.00mm

1/16"-5/32"

ER 308LSi

Alloy ER308LSi Welding data

Weld Process:

Used for Mig, Tig & Submerged arc

Deposited All Weld Metal Properties:

Data is typical for ER308LSi weld metal deposited by mig using Argon+2% oxygen and Tig using Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.



AWS Chemical Composition Requirements

C	Si	Mn	Cr	Ni	P	S	Mo	Cu
0.030	0.65	1.0	19.50	9.0	0.030	0.030	0.75	0.75
max	1.00	2.50	22.0	11.0	max	max	max	max

Deposited Chemical Composition % (Typical)

C	Si	Mn	P	S	Cr	Ni
0.018	0.086	1.68	0.016	0.007	20.20	10.10

Application:

ER308Si is suitable for joining stainless steel of the 304 type and 308 types. welding speed is higher than 308 or 308L due to improved weldability of the weld metal.

Mechanical Properties (R.T.):

Yield strength	380 MPa
Tensile strength	610 MPa
Elongation	39%
Reduction of area	65%
Impact value	-196°C (35-55 Joules)

Type of Filler wire

GMAW " Mig Filler wire"

Diameter Range

0.80-1.6mm
0.030"-1/16"

GTAW " Tig Process "

Diameter Range

1.60-4.00mm
1/16"-5/32"

Submerged Arc Welding

Diameter Range

1.60-4.00mm
1/16"-5/32"

ER 309L

Alloy ER309L Welding data

Weld Process:

Used for Mig, Tig & Submerged arc

Deposited All Weld Metal Properties:

Data is typical for ER309L weld metal deposited by mig using Argon+2% oxygen and Tig using 100% Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.



AWS Chemical Composition Requirements

C	Si	Mn	Cr	Ni	P	S	Mo	Cu
0.030	0.30	1.0	23.0	12.0	0.030	0.030	0.75	0.75
max	0.65	2.50	25.0	14.0	max	max	max	max

Deposited Chemical Composition % (Typical)

C	Si	Mn	P	S	Cr	Ni
0.018	0.37	1.95	0.014	0.011	23.60	13.60

Application:

ER-309L has the same qualities as ER-309 but with the lower carbon content deemed necessary in many chemical application ER-309L preferred over ER-309 for cladding over carbon or low alloy steel, or dissimilar joints that are heat treated.

Mechanical Properties (R.T.):

Yield strength	389 MPa
Tensile strength	610 MPa
Elongation	41%
Reduction of area	62%
Impact value	-196°C (35-55 Joules)

Type of Filler wire

GMAW " Mig Filler wire"

Diameter Range

0.80-1.6mm

0.030"-1/16"

GTAW " Tig Process "

Diameter Range

1.60-4.00mm

1/16"-5/32"

Submerged Arc Welding

Diameter Range

1.60-4.00mm

1/16"-5/32"

ER 309LSi

Alloy ER309LSi Welding data

Weld Process:

Used for Mig, Tig & Submerged arc

Deposited All Weld Metal Properties:

Data is typical for ER309LSi weld metal deposited by mig using Argon+2% oxygen and Tig using 100% Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.



AWS Chemical Composition Requirements

C	Si	Mn	Cr	Ni	P	S	Mo	Cu
0.030	0.65	1.0	23.0	12.0	0.030	0.030	0.75	0.75
max	1.00	2.50	25.0	14.0	max	max	max	max

Deposited Chemical Composition % (Typical)

C	Si	Mn	P	S	Cr	Ni
0.017	0.013	1.87	0.013	0.010	23.65	12.80

Application:

ER-309LSi is suitable for joining Stainless steels of the 304 type and 347 type. The higher silicon gives are stability and exceptinally smooth bead appearance.

Mechanical Properties (R.T.):

Yield strength	395 MPa
Tensile strength	613 MPa
Elongation	38%
Reduction of area	60%
Impact value	-196°C (35-55 Joules)

Type of Filler wire

GMAW " Mig Filler wire"

Diameter Range

0.80-1.6mm
0.030"-1/16"

GTAW " Tig Process "

Diameter Range

1.60-4.00mm
1/16"-5/32"

Submerged Arc Welding

Diameter Range

1.60-4.00mm
1/16"-5/32"

ER 70S6

CLASSIFICATION:

AWS A-5.18: ER 70S6

DESCRIPTION:

Copper coated filler wire having deoxidants such as Mn and Si content. Smooth flow and gives shiny bead under optimum welding conditions. The deposited weld meet x-ray / radiographic quality code requirement.



TYPICAL USES:

- For welding of structural, pressure vessels and boilers involving and micro alloyed structural steel with specified tensile strength upto 520N/mm to meet sub zero Impact requirements down to 29°C.

SHIELDING GAS:

100% welding grade CO₂ or 80 % Argon + 20 % CO₂

WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	Cu	P
0.06	1.4	0.8	0.025	0.50	0.03
0.15	1.85	1.15	max	max	max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	CVN Impact	
			Temp	Joules
500	400	24-30	-30°C	50-120
620	510			

RECOMMENDED CURRENT AND PACKING DATA

SIZE (mm)	LENGTH (mm)	AMPS (Current)	QTY/PACKET (Kgs)	QTY/BOX (Kg)
1.6	1000	100-160	5 Kg	5 X 4 = 20 Kg
2.00	1000	150-190	5 Kg	5 X 4 = 20 Kg
2.40/2.50	1000	180-230	5 Kg	5 X 4 = 20 Kg
3.15/3.20	1000	230-300	5 Kg	5 X 4 = 20 Kg

E 71T-1

CLASSIFICATION:

AWS/SFA 5.20: E71T-1C, EN 758: T46 P C
1 H5 ASME - IIC/SFA-5.20-AWS E 17T-1C

CHARACTERISTICS:

Tubular rutile flux-cored wire for single or multipass welding of carbon, carbon-manganese steels and similar types of steels, including fine grain ones, with CO₂ shielding gas. The good weldability in all positions, excellent bead appearance, less spatter, a fast freezing and easy to remove slag. Deposited weld arc of radiographic quality.

TYPICAL APPLICATIONS:

Power Plant equipments, Off-Shore Platforms, Pressure Vessels, Ship building, Railways Wagons, General Fabrication welding, Pipe welding, Bridges, Automobile parts, Tanks etc.

UNALLOYED STRUCTURAL STEEL:

St 32, St 37-2 to St 52-3, ASME/ASTM SA-516-Grade 60/65/70, IS 2062 or equivalent.



WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P
0.06	1.4	0.8	0.025	0.030
0.15	1.85	1.15	max	max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	ELN (%) (L=4D)	Charpy V notch impact strength	
			Temp	Joules
510	440	22-30	0°C	50-100
650	540			

SHELDING GAS: CO₂

FLOW RATE: 14-20 l/min

RECOMMENDED WELDING PARAMETERS

SIZE (mm)	Amps DC (+)	Voltage (V)	Weight of the spool (KG)
1.2	200-400	22-35	22-35
1.6	200-400	23-37	23-37

Cutting Disc

Max. working speed:
80m/s















Material:

Tool steels, high-alloy stainless steels, heat-treated steel, ductile, graphite iron, manganese, cast iron.

Application:

Cutting of sprues, full-materials, tubes and profiles.

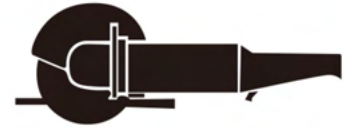


Dimension DxTxH(mm)	Dimension DxTxH(inch)	Shape	Max r.p.m.	PCS/ Shrink wrap	PCS/ Inner box	PCS/ Master carton
100X2.5X16	4x ³ /32x ⁵ /8		15200	10	50	200
100X3.2X16	4x ¹ /8x ⁵ /8		15200	5	50	200
115X2.5X22.2	4 ¹ /2x ³ /32x ⁷ /8		13300	10	50	200
115X3.2X22.2	4 ¹ /2x ¹ /8x ⁷ /8		13300	5	50	200
125X2.5X22.2	5x ³ /32x ⁷ /8		12200	10	50	200
125X3.2X22.2	5x ¹ /8x ⁷ /8		12200	5	25	200
150X2.5X22.2	6x ³ /32x ⁷ /8		10200	5	25	200
150X3.2X22.2	6x ¹ /8x ⁷ /8		10200	5	25	200
180X2.5X22.2	7x ³ /32x ⁷ /8		8500	5	25	100
180X3.2X22.2	7x ¹ /8x ⁷ /8		8500	5	25	100
230X2.5X22.2	9x ³ /32x ⁷ /8		6600	5	25	50
230X3.2X22.2	9x ¹ /8x ⁷ /8		6600	5	25	50
250X2.5X22.2	10x ³ /32x ⁷ /8		6150	5	25	50
250X3.2X22.2	10x ¹ /8x ⁷ /8		6150	5	25	50

Type 41/Type 42



Machine



Cutting Disc

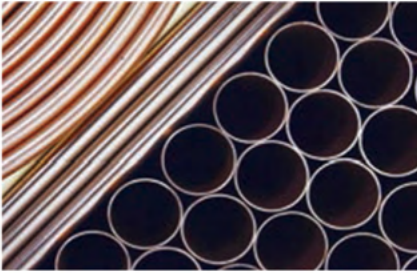
Max. working speed:
80m/s







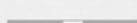



Material:

Mild steels with medium strength, plain alloy tool steels, cast material, concrete reinforcing iron.

Application:

Cutting of full-materials, tubes, SML-ductile-tubes, profiles and steel sheets.



Dimension DxTxH(mm)	Dimension DxTxH(inch)	Shape	Max r.p.m.	PCS/ Shrink wrap	PCS/ Master carton
300X3.2X25.4	12x1/8x1		5100	5	25
300X3.2X32	12x1/8x1 1/4		5100	5	25
300X4.0X25.4	12x5/32x1		5100	5	25
300X4.0X32	12x5/32x1 1/4		5100	5	25
355X3.2X25.4	14x1/8x1		4400	5	25
355X3.2X32	14x1/8x1 1/4		4400	5	25
355X4.0X25.4	14x5/32x1		4400	5	20
355X4.0X32	14x5/32x1 1/4		4400	5	20
400X4.0X25.4	16x5/32x1		3800	5	20
400X4.0X32	16x5/32x1 1/4		3800	5	20

Type 41

Machine



Grinding Disc

Max. working speed:
80m/s



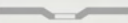



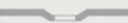

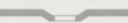



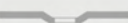



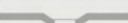

Material:

Tool steels, high-alloy stainless steels, heat-treated steels, grey cast iron, malleable cast iron, cast steel, ductile graphite iron, manganese cast iron.

Application:

Grinding of sprues, hard welds, build-upwelds, cleaning of castings.



Dimension DxTxH(mm)	Dimension DxTxH(inch)	Shape	Max r.p.m.	PCS/ Shrink wrap	PCS/ Inner box	PCS/ Master carton
100X4.0X16	4x ⁵ /32x ⁵ /8		15200	5	50	100
100X6.0X16	4x ¹ /4x ⁵ /8		15200	5	50	100
115X4.0X22.2	4 ¹ /2x ⁹ /32x ⁷ /8		13300	5	25	100
115X6.0X22.2	4 ¹ /2x ¹ /4x ⁷ /8		13300	5	25	100
115X7.0X22.2	4 ¹ /2x ⁹ /32x ⁷ /8		13300	5	25	100
115X8.0X22.2	4 ¹ /2x ⁵ /16x ⁷ /8		13300	5	25	100
125X4.0X22.2	5x ⁵ /32x ⁷ /8		12200	5	25	100
125X6.0X22.2	5x ¹ /4x ⁷ /8		12200	5	25	100
125X7.0X22.2	5x ⁹ /32x ⁷ /8		12200	5	25	100
125X8.0X22.2	5x ⁵ /16x ⁷ /8		12200	5	25	100
150X4.0X22.2	6x ⁵ /32x ⁷ /8		10200	5	25	100
150X6.0X22.2	6x ¹ /4x ⁷ /8		10200	5	25	100
150X7.0X22.2	6x ⁹ /32x ⁷ /8		10200	5	15	50
150X8.0X22.2	6x ⁵ /16x ⁷ /8		10200	5	15	50
180X4.0X22.2	7x ⁵ /32x ⁷ /8		8500	5	15	60
180X6.0X22.2	7x ¹ /4x ⁷ /8		8500	5	15	60
180X7.0X22.2	7x ⁹ /32x ⁷ /8		8500	5	30	50
180X8.0X22.2	7x ⁵ /16x ⁷ /8		8500	5	30	50

Type 27



Machine



Grinding Disc

Max. working speed
80m/s

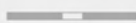









Material

Tool steels, high-alloy stainless steels, heat-treated steels, grey cast iron, malleable cast iron, cast steel, ductile graphite iron, manganese cast iron.

Application

Grinding of sprues, hard welds, build-upwelds, cleaning of castings.



Dimension DxTxH(mm)	Dimension DxTxH(inch)	Shape	Max r.p.m.	PCS/ Shrink wrap	PCS/ Master carton
300X3.2X25.4	12x1/8x1		5100	5	25
300X3.2X32	12x1/8x1 1/4		5100	5	25
300X4.0X25.4	12x5/32x1		5100	5	25
300X4.0X32	12x5/32x1 1/4		5100	5	25
355X3.2X25.4	14x1/8x1		4400	5	25
355X3.2X32	14x1/8x1 1/4		4400	5	25
355X4.0X25.4	14x5/32x1		4400	5	20
355X4.0X32	14x5/32x1 1/4		4400	5	20
400X4.0X25.4	16x5/32x1		3800	5	20
400X4.0X32	16x5/32x1 1/4		3800	5	20

Type 27



Machine





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