

Classifications

EN ISO 17633-B:2010 : TS 308H-F C1/M21 1
 JIS Z 3323-2007 : TS308H-FB1

AWS A5.22-2012 : E308HT1-1/4

Description

- K-308HT is designed for MAG welding of high carbon 18%Cr-8%Ni stainless steels(STS 304H, 307H) and recommended to be used for high temperature service (about 600°C)
- It is a titania type of flux cored wire for all-position welding and has excellent feedability and increased creep resistance at elevated temperature.
- The weld metal contains optimum ferrite contents in their austenitic micro structures and their weldability is excellent with lower crack susceptibility.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂ (15~25ℓ/min)
- Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.06	0.65	1.00	19.50	10.50	7.5
Mix	0.06	0.75	1.10	19.80	10.50	8.0

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40°C	Remarks
AWS A5.22		min. 520	min. 35		
EN ISO 17633-B		min. 520	min. 30		
Example	430	600	39	45	CO ₂
	440	610	40	55	Mix

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat inp

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

K-308LB

Austenitic Stainless welding wire (Low C, Bi Free)

Classifications

EN ISO 17633-A:2008	: T 19 9 L P C(M) 1	KS D 3612	: YF-308LC
EN ISO 17633-B:2008	: TS308L-FB1	JIS Z 3323	: TS308L-BiF-FB1
AWS A5.22-15	: E308LT1-1/4		

Description

- K-308LB is designed for MAG welding of high carbon 18%Cr-8%Ni stainless steels with high temperature heat treatment such as solution treatment.
- It is a titania type of flux cored wire without Bi component for all-position welding.
- It has excellent feedability and increased creep resistance at elevated temperature.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.03	0.48	1.15	19.30	9.95	7.5
Mix	0.03	0.60	1.25	19.50	10.00	8.0

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40°C	Remarks
AWS A5.22		min. 520	min. 35		
EN ISO 17633-B		min. 520	min. 30		
Example	420	560	38	56	CO ₂
	430	580	38	52	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- It should weld with proper welding conditions for slag detachment and weldability.

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

K-309LF

Austenitic Stainless welding wire (Low C, Dissimilar joints)

Classifications

EN ISO 17633-A:2008	: T 23 12 L R C(M) 3	KS D 3612	: YF-309LC
EN ISO 17633-B:2008	: TS309L-FB0	JIS Z 3323	: TS309L-FB0
AWS A5.22-15	: E309LT0-1/4		

Description

- Dissimilar joint welds ; of and between high-strength, mild steels and low allowed QT-steels, stainless, ferritic Cr- and austenitic Cr-Ni-steels, manganese steels Cladding ; for the first layer of corrosion resistant weld claddings on ferritic-perlitic steels in boiler and pressure vessel parts up to fine-grained steel S500N.
- Wire is a titania type of flux cored wire for flat and horizontal position welding and it provides better weldability together with excellent corrosion resistance.
- Wire has low spatter, easy slag removal and good weld soundness.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~20ℓ/min),
Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.03	0.60	1.42	23.30	13.17	5~12 & 11~16
Mix	0.03	0.75	0.45	23.50	13.30	

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -30°C	Remarks
AWS A5.22		min. 520	min. 30		
EN ISO 17633-B	min. 320	min. 520	min. 25		
Example	420	560	37	43	CO ₂
	430	570	38	50	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

Shielding gas	DNV
Mix	NV 309L

Classifications

EN ISO 17633-A:2008	: T 19 9 L P C(M) 1	KS D 3612	: YF-308LC
EN ISO 17633-B:2008	: TS308L-FB1	JIS Z 3323	: TS308L-FB1
AWS A5.22-15	: E308LT1-1/4		

Description

- K-308LS is designed for MAG welding of low carbon 18%Cr-8%Ni stainless steels and recommended to be used for low temperature service (STS 304, 304L, 304LN, ASTM A157 Gr C9; A320 Gr. B8C or D)
- It is a titania type of flux cored wire for all-position welding and formulated to focus on mechanical properties more than welding arc stability and provides good corrosion resistance, heat resistance properties.
- The weld metal contains low ferrite contents in their austenitic micro structures and provides good corrosion resistance, heat resistance properties.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂
- Mix: Ar+20% CO₂ (15-25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.03	0.63	1.39	18.55	10.02	3-8
Mix	0.03	0.69	1.24	18.95	10.86	

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -196°C	Remarks
AWS A5.22		min. 520	min. 35		
EN ISO 17633-B		min. 520	min. 30		
Example	400	550	43	40	CO ₂
	427	587	50	48	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Classifications

EN ISO 17633-A:2008	: T 19 9 L P C(M) 1	KS D 3612	: YF-308LC
EN ISO 17633-B:2008	: TS308L-FB1	JIS Z 3323	: TS308L-FB1
AWS A5.22-15	: E308LT1-1/4		

Description

- K-308LT is designed for MAG welding of low carbon 18%Cr-8%Ni stainless steel and used to joint austenitic stainless steel (AISI 304, 304L, 304LN, ASTM A157 Gr. C9; A320 Gr. B8C or D)
- The weld metal contains optimum ferrite contents in their austenitic structures, Therefore their weldability is excellent with lower crack susceptibility.
- It has easy slag removal, low spatter generation and good weld soundness of weld-metal.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂ (15~25ℓ/min)
- Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.03	0.60	1.15	20.30	10.50	
Mix	0.03	0.65	1.25	20.40	10.50	3~8 & 8~12

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40℃	Remarks
AWS A5.22		min. 520	min. 35		
EN ISO 17633-B		min. 520	min. 30		
Example	440	570	39	65	CO ₂
	450	580	38	63	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

Shielding gas	ABS	BV	DNV	LR	NK	KR	CCS
CO ₂	E308LT1-1	UP	308L	BF 304L S CHE	KW 308LG(C)	RW 308LG(C)	304L

K-308T

Austenitic Stainless welding wire (18%Cr-8%Ni)

Classifications

EN ISO 17633-B:2008	: TS308-FB0	KS D 3612	: YF-308C
AWS A5.22-15	: E308T0-1/4	JIS Z 3323	: TS308-FB0

Description

- K-308T is designed for MAG welding of 18%Cr-8%Ni stainless steels and also formulated for operation primarily in the flat position and for welding horizontal fillet welds.
- It is a titania type of flux cored wire for AISI 304 and 304H steel type and has low spatter generation, easy slag removal and good weld soundness.
- The weld metal contains optimum ferrite contents in their austenitic structures, Therefore their weldability is excellent with lower crack susceptibility.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.04	0.60	1.15	20.40	10.60	9
Mix	0.04	0.65	1.25	20.60	10.60	10

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40°C	Remarks
AWS A5.22		min. 550	min. 35		
EN ISO 17633-B		min. 550	min. 30		
Example	450	580	39	60	CO ₂
	460	590	38	65	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Classifications

AWS A5.22-2012 : E309HT1-1

Description

- K-309HT is designed for MAG welding of high carbon 22%Cr-12%Ni stainless steels(STS 309) and recommended to be use for high temperature service (about 600°C)
- It is a titania type of flux cored wire for all-position welding and has excellent feedability and increased creep resistance at elevated temperature.
- The weld metal contains optimum ferrite contents in their austenitic micro structures and their weldability is excellent with lower crack susceptibility.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~20ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.06	0.74	1.43	23.45	12.39	14

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40°C	Remarks
AWS A5.22 Example	446	min. 550 583	min. 30 38	37	CO ₂

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Flux Cored Welding Wire

K-309LF

Austenitic Stainless welding wire (Low C, Dissimilar joints)

Classifications

EN ISO 17633-A:2010	: T 23 12 L R C1/M21 3	KS D 3612-2016	: YF-309LC
EN ISO 17633-B:2010	: TS 309L-F C1/M21 0	JIS Z 3323-2007	: TS309L-FB0
AWS A5.22-2012	: E309LT0-1/4		

Description

- Dissimilar joint welds ; of and between high-strength, mild steels and low allowed QT-steels, stainless, ferritic Cr- and austenitic Cr-Ni-steels, manganese steels
- Cladding ; for the first layer of corrosion resistant weld claddings on ferritic-perlitic steels in boiler and pressure vessel parts up to fine-grained steel S500N.
- Wire is a titania type of flux cored wire for flat and horizontal position welding and it provides better weldability together with excellent corrosion resistance.
- Wire has low spatter, easy slag removal and good weld soundness.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~20ℓ/min),
Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.03	0.60	1.42	23.30	13.17	5~12 & 11~16
Mix	0.03	0.75	0.45	23.50	13.30	

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -30℃	Remarks
AWS A5.22		min. 520	min. 30		
EN ISO 17633-B	min. 320	min. 520	min. 25		
Example	420	560	37	43	CO ₂
	430	570	38	50	Mix

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity.
Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

DNV*GL, JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

Flux Cored Welding Wire

K-309LMT

Austenitic Stainless welding wire (Muffler, Dissimilar joints)

Classifications

EN ISO 17633-B:2010 : TS 309L-M M13 0
AWS A5.9-2017 : EC309L

KS D 3612-2016 : YF-309LG
JIS Z 3323-2007 : TS309L-MA0

Description

- K-309LMT is designed for MAG welding of low carbon 22%Cr-12%Ni stainless steels and It is suitable for automotive exhaust fabricators such as front pipe, bellows, flange (AISI 409, 436 and dissimilar joint welds)
- Slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- K-309LMT provides low spatter, excellent bead appearance and porosity resistance.
- Weld metals contain comparatively much more ferrite in their austenitic, therefore they provide better weldability together with superior heat resistance, and corrosion resistance.

Welding positions



Polarity & shielding gas

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
Mix	0.03	0.50	1.65	23.90	12.60	18

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -30℃	Remarks
AWS A5.9		min. 520	min. 30		
EN ISO 17633-B		min. 520	min. 25		
Example	440	560	40	50	Mix

Notes on usage and welding condition

Dia.(mm)	1.2	Stick-out
Current	PA/1G	180 ~ 260
(Amp.)	PC/2G	(22 ~25)

Package

Dia. (mm)	1.2	1.6
Spool (kg)	5, 12.5, 15	
Pailpack (kg)	100	

Approvals

JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

Classifications

EN ISO 17633-B:2010 : TS 309L-M M13 0
 AWS A5.22-2012 : EC309L

KS D 3612-2016 : YF-309LG
 JIS Z 3323-2007 : TS309L-MA0

Description

- K-309LMTS is designed for MAG welding of low carbon 22%Cr-12%Ni stainless steels and it is suitable for automotive exhaust fabricators such as front pipe, bellows, flange (AISI 409, 436 and dissimilar joint welds)
- Slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- K-309LMTS provides low spatter, excellent bead appearance and porosity resistance.
- Weld metals contain comparatively much more ferrite in their austenitic, therefore they provide better weldability together with superior heat resistance, and corrosion resistance.

Welding positions



Polarity & shielding gas

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Ti
Mix	0.03	0.47	1.60	23.40	13.40	0.50

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -30℃	Remarks
JIS Z 3323 Example	450	min. 520 570	min. 25 42	60	Mix

Notes on usage and welding condition

Dia.(mm)	1.2	Stick-out
Current F (PA/1G) (Amp.) HF (PC/2G)	180 ~ 260 (22 ~ 25)	(15 ~ 20mm)

Package

Dia. (mm)	1.2	1.6
Spool (kg)	5, 12.5, 15	
P/pack (kg)	100	

Approvals

JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

Classifications

EN ISO 17633-A:2008	: T 23 12 2 L R C(M) 3	KS D 3612	: YF-309MoLC
EN ISO 17633-B:2008	: TS309LMo-FB0	JIS Z 3323	: TS309LMo-FB0
AWS A5.22-15	: E309LMoT0-1/4		

Description

- Dissimilar joint welds ; of and between high-strength, mild steels and low-alloyed QT-steels, stainless, ferritic Cr- and austenitic Cr-Ni-steels, manganese steels.
Cladding ; for the first layer of corrosion resistant weld claddings on ferritic-perlitic steels in boiler and pressure vessel parts up to fine-grained steel S500N.
- Wire is a titania type of flux cored wire for flat and horizontal welding and for Mo-alloyed claddings the product is necessary for the 1st layer.
- Weld metals contain comparatively much more ferrite in their austenitic, therefore they provide better weldability together with superior heat resistance, and corrosion resistance.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂
- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.65	1.32	23.45	13.01	2.50	5~12 & 19~26
Mix	0.03	0.67	1.35	23.45	13.01	2.50	

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -60°C	Remarks
AWS A5.22		min. 520	min. 25		
EN ISO 17633-B	min. 350	min. 550	min. 25		
Example	635	740	30	30	CO ₂
	625	737	32	31	Mix

Notes on usage and welding condition

- Refer to 303 page for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	1.2	1.6
Spool (kg)	5, 12.5, 15	

Flux Cored Welding Wire

K-309MoLT

Austenitic Stainless welding wire (Dissimilar joints)

Classifications

EN ISO 17633-A:2010	: T 23 12 2 L P C1 1	KS D 3612-2016	: YF-309MoLC
EN ISO 17633-B:2010	: TS 309LMo-F C1 1	JIS Z 3323-2007	: TS309LMo-FC1
AWS A5.22-2012	: E309LMoT1-1		

Description

- Dissimilar joint welds ; of and between high-strength, mild steels and low-alloyed QT-steels, stainless, ferritic Cr- and austenitic Cr-Ni-steels, manganese steels.
- Cladding ; for the first layer of corrosion resistant weld claddings on ferritic-perlitic steels in boiler and pressure vessel parts up to fine-grained steel S500N.
- Wire is a titania type of flux cored wire for all-position welding and for Mo-alloyed claddings the product is necessary for the 1st layer.
- Weld metals contain comparatively much more ferrite in their austenitic, therefore they provide better weldability together with superior heat resistance, and corrosion resistance.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.60	1.00	23.75	14.60	2.50	18.0

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -30°C	Remarks
AWS A5.22		min. 520	min. 25		
EN ISO 17633-B	min. 350	min. 550	min. 25		
Example	480	700	30	35	CO ₂

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity.
Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	1.2	1.6
Spool (kg)	5, 12.5, 15	

Approvals

ABS, KR, JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

K-309T

Austenitic Stainless welding wire (Dissimilar joints)

Classifications

EN ISO 17633-B:2008	: TS309-FB0	KS D 3612	: YF-309C
AWS A5.22-15	: E309T0-1/4	JIS Z 3323	: TS309-FB0

Description

- K-309T is formulated for MAG welding of 22%Cr-12%Ni stainless steels and typical applications is for welding of dissimilar steels, such as 304 to mild steel or low alloy steels.
- K-309T is a titania type of flux cored wire for cladding and dissimilar joint welds.
- Weld metals contain comparatively much more ferrite in their austenitic, therefore they provide better weldability together with superior heat resistance, and corrosion resistance.
- It is designed for operation in the flat position and for wedging horizontal fillet welds.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂,
Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.05	0.58	1.45	23.50	13.00	14
Mix	0.05	0.70	1.63	23.70	13.20	15

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -40°C	Remarks
AWS A5.22		min. 550	min. 30		
EN ISO 17633-B		min. 550	min. 25		
Example	450	590	35	40	CO ₂
	460	610	34	44	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

K-312T

Austenitic Stainless welding wire (dissimilar joints, Buffer layer)

Classifications

EN ISO 17633-A:2008	: T 29 9 P C 1	AWS A5.22-15	: E312T1-1
EN ISO 17633-B:2008	: TS312-FC1	JIS Z 3323	: TS312-FC1

Description

- K-312T is formulated for MAG welding of 30%Cr-9%Ni stainless steels and It is used for joining dissimilar steels, steels with reduced weldability and buffer layers prior to hardfacing (rolls, forging dies, hotwork tools, dies for plastics and so on)
- Wire is a titania type of flux cored wire for all-position welding and It also provides excellent usability with stable arc, less spatter levels, better bead appearance as the same as that of a solid MIG wire.
- It has resistance to stress corrosion and highly insensitive to dilution and good scaling resistance up to 1150°C.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
CO ₂	0.06	0.55	1.25	30.30	10.06	60 ~ 80

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
AWS A5.22		min. 660	min. 22	
EN ISO 17633-B	min. 450	min. 660	min. 15	
Example	600	760	25	CO ₂

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Flux Cored Welding Wire

K-316LF

Austenitic Stainless welding wire (Low C, 18%Cr-8%Ni-Mo)

Classifications

EN ISO 17633-A:2010 : T 19 12 3 L R C1/M21 3 KS D 3612-2016 : YF-316LC
 EN ISO 17633-B:2010 : TS 316L-F C1/M21 0 JIS Z 3323-2007 : TS316L-FB0
 AWS A5.22-2012 : E316LT0-1/4

Description

- K-316LF is designed for MAG welding of low carbon 18%Cr-12%Ni-2%Mo stainless steel and this wire has low carbon content which gives good resistance to most types of corrosion of the weld metal(AISI 316L, 316Ti, 316Cb)
- Wire is a titania type of flux cored wire for flat and horizontal position welding.
- K-316LF has self-detaching slag and spray-like arc transfer, as well as excellent weldability and increased creep resistance at elevated temperature.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂,
 Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.58	1.38	19.50	12.50	2.4	3~8 & 8~12
Mix	0.03	0.63	1.45	19.70	12.60	2.4	

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J)		Remarks
				-60°C	-105°C	
AWS A5.22		min. 485	min. 30			
EN ISO 17633-B	min. 320	min. 510	min. 25			
Example	440	570	37	52	40	CO ₂
	440	590	36	55	42	Mix

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

DNV*GL, JIS

- × Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

Classifications

EN ISO 17633-B:2008	: TS316L-FB1	KS D 3612	: YF-316LC
AWS A5.22-15	: E316LT1-1/4	JIS Z 3323	: TS316L-FB1

Description

- K-316LS is designed for MAG welding of low carbon 18%Cr-8%Ni-2%Mo stainless steels and recommended to be use for low temperature service (AISI 316, 316L)
- It is a titania type of flux cored wire for all-position welding and formulated to focus on mechanical properties more than welding arc stability.
- The weld metal contains low ferrite contents in their austenitic micro structures and provides good corrosion resistance, heat resistance properties.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂,
Mix: Ar+20% CO₂ (15-25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.87	1.28	17.90	13.09	2.4	
Mix	0.03	0.89	1.39	18.09	12.95	2.3	4~8

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -196°C	Remarks
AWS A5.22		min. 485	min. 25		
EN ISO 17633-B	min. 320	min. 510	min. 30		
Example	420	537	35	39	CO ₂
	430	541	37	39	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

Shielding gas	ABS	BV	DNV*GL	LR	KR
CO ₂	A5.22 E316LT-1	BT 316L	NV 316L	316L S	RW 316L M G

Classifications

EN ISO 17633-A:2008	: T 19 12 3 L P C(M) 1	KS D 3612	: YF-316LC
EN ISO 17633-B:2008	: TS316L-FB1	JIS Z 3323	: TS316L-FB1
AWS A5.22-15	: E316LT1-1/4		

Description

- K-316LT is designed for MAG welding of low carbon 18%Cr-12%Ni-2%Mo stainless steels and this wire has low carbon content which gives good resistance to most types of corrosion of the weld metal (AISI 316L, 316Ti)
- Wire is a titania type of flux cored wire for all-position welding and the weld metal contains optimum ferrite contents in their austenitic structures, therefore their weldability is excellent with lower crack susceptibility.
- Wire has self-detaching slag, spray-like arc transfer, excellent weldability and increased creep resistance at elevated temperature

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂,
Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.60	1.15	19.50	12.70	2.40	
Mix	0.03	0.65	1.20	19.70	12.70	2.40	3-8 & 8-12

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J)		Remarks
				-60°C	-105°C	
AWS A5.22		min. 485	min. 30			
EN ISO 17633-B	min. 320	min. 510	min. 25			
Example	420	560	38	50	38	CO ₂
	430	570	38	52	40	Mix

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

Shielding gas	ABS	BV	DNV	LR	KR	NK	RINA	RS	CCS
CO ₂	E316LT1-1	UP	316L MS	BF 316L S CHE	RW 316L(G)(C)	KW 316L(G)(C)	316LS	A-6	316L

K-317LT

Austenitic Stainless welding wire (Low C, 19%Cr-13%Ni-Mo)

Classifications

EN ISO 17633-B:2008	: TS317L-FC1	KS D 3612	: YF-317LC
AWS A5.22-15	: E317LT1-1	JIS Z 3323	: TS317L-FC1

Description

- K-317LT is designed for MAG welding of low carbon 19%Cr-13%Ni-3%Mo stainless steels and the principal area of application is process and chemical plant, shipbuilding as well as nuclear plant industries (AISI 316L, 316LN, 317L, 317LN, UNS S31726)
- Wire is a titania type of flux cored wire for all-position welding and it has self-detaching slag, spray-like arc transfer, excellent weldability and increased creep resistance at elevated temperature.
- It contains higher levels of Mo for increased corrosion-resistance when compared to the K-316LT.
- The weld metal contains optimum ferrite contents in their austenitic structures, Therefore their weldability is excellent with lower crack susceptibility.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15-25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	FN
CO ₂	0.03	0.56	1.00	19.60	13.30	3.85	11.0

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J)		Remarks
				-20°C	-40°C	
AWS A5.22		min. 520	min. 20			
EN ISO 17633-B		min. 520	min. 20			
Example	390	650	32	55	44	CO ₂

Notes on usage and welding condition

- Refer to page 304 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

Shielding gas	Others
CO ₂	CE, JIS

Classifications

EN ISO 17633-B:2008	: TS2553-FC0	JIS Z 3323	: TS2553-FC0
AWS A5.22-15	: E2553T0-G		

Description

- K-325T is formulated for MAG welding of 25%Cr-9%Ni-3%MoCu duplex stainless steels and the typical application is chemical plant and shipbuilding as well as nuclear plant industries (UNS S32520, UNS S32550, S32750, S32900, JIS 329J4L)
- Wire is a titania type of flux cored wire for flat and horizontal position welding, and provides low spatter and fume generation and high efficiency in flat position
- It has better pitting corrosion resistance and stress corrosion cracking resistance compared to the E2209TX-XXX welding consumables type.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	PREN	FN
CO ₂	0.03	0.50	0.80	25.60	9.00	3.6	40.5	55

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J)		Remarks
				-20°C	-40°C	
AWS A5.22		min. 690	min. 20			
EN ISO 17633-B	min. 350	min. 690	min. 15			
Example	750	860	25	42	27	CO ₂

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

K-325TP

Super Duplex Stainless welding wire (25%Cr-9%Ni-Mo)

Classifications

AWS A5.22-15

: E2594T1-1

JIS Z 3323

: TS329J4L-FC1

Description

- K-325TP is formulated for MAG welding of 25%Cr-9%Ni-3%MoCu duplex stainless steels and the typical application is chemical plant and shipbuilding as well as nuclear plant industries (UNS S32520, UNS S32550, S32750, S32900, JIS 329J4L)
- Wire is a titania type of flux cored wire for flat and horizontal position welding, and provides low spatter and fume generation and high efficiency in flat position
- It has better pitting corrosion resistance and stress corrosion cracking resistance compared to the E2209TX-XXX welding consumables type.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	PREN	FN
CO ₂	0.03	0.60	1.00	25.50	9.50	3.68	40.2	55

Typical mechanical properties of all-weld metal

	Y.S	T.S	El.	IV (J)		Remarks
	(MPa)	(MPa)		-20℃	-40℃	
AWS A5.22		min. 760	min. 15			
Example	817	909	22	40	28	CO ₂

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, base metal will be bended or distorted due to the bad heat conductivity. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Flux Cored Welding Wire

K-329T

Duplex Stainless welding wire (22%Cr-9%Ni-Mo)

Classifications

EN ISO 17633-A:2010 : T 22 9 3 N L P C1/M21 1
EN ISO 17633-B:2010 : TS 2209-F C1/M21 1

AWS A5.22-2012 : E2209T1-1/4
JIS Z 3323-2007 : TS2209-FB1

Description

- K-329T is formulated for MAG welding of 23%Cr-9%Ni-3%Mo duplex stainless steel and this principal area of application is chemical plant and shipbuilding as well as nuclear plant industries (ASTM A185 Gr.51, UNS S31803, DIN 1.4462, JIS 329J1)
- Wire is a titania type of flux cored wire for all-position welding and It has a stable welding arc producing a weld with easy slag removal and minimal spatter.
- K-329T is excellent in pitting corrosion resistance and stress corrosion cracking resistance.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂,
- Mix: Ar+20% CO₂ (15~25l/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo	PREN	FN
CO ₂	0.03	0.52	0.80	23.20	9.60	3.20	37	36.7
Mix	0.03	0.54	0.85	23.40	9.60	3.30	38	36.8

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J)		Remarks
				-20°C	-40°C	
AWS A5.22		min. 690	min. 20			
EN ISO 17633-B	min. 350	min. 690	min. 15			
Example	715	818	27	52	42	CO ₂
	720	825	26	50	40	Mix

Notes on usage and welding condition

- Refer to page 313 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Approvals

ABS, DNV*GL, LR, JIS

* Please refer to our homepage(www.kiswel.com) for further detailed information regarding approvals.

Classifications

EN ISO 17633-A:2008	: T 19 9 Nb P C 1	KS D 3612	: YF-347LC
EN ISO 17633-B:2008	: TS347-FC1	JIS Z 3323	: TS347L-FC1
AWS A5.22-15	: E347T1-1		

Description

- K-347T is formulated for MAG welding of 19%Cr-9%Ni-Nb stainless steels. (AISI 347, 321, ASTM A296; A157 Gr. C9; A320 Gr. B8C or D)
- Wire is a titania type of flux cored wire for all-position welding and it has low spatter generation, easy slag removal and good weld soundness.
- Nb component improves the resistance to intergranular corrosion of the weld metal.
- The weld metal contains optimum ferrite contents in their austenitic structures, Therefore their weldability is excellent with lower crack susceptibility.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Nb	FN
CO ₂	0.04	0.68	1.15	19.70	10.10	0.56	7.0

Typical mechanical properties of all-weld metal

	Y.S	T.S	El.	IV (J)		Remarks
	(MPa)	(MPa)		-60°C	-105°C	
AWS A5.22		min. 520	min. 30			
EN ISO 17633-B	min. 350	min. 520	min. 25			
Example	480	650	33	50	40	CO ₂

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- When heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input

Package

Dia. (mm)	0.9	1.2	1.6
Spool (kg)	5, 12.5, 15		

Flux Cored Welding Wire

K-409TiC

Ferritic Stainless welding wire (Muffler, 13%Cr-Ti)

Classifications

EN ISO 17633-B:2010 : TS 409-M M13 0

AWS A5.22-2012 : E409T0-G

Description

- K-409TiC is developed to meet the needs of the automotive exhaust fabricators that desired a metal cored wire. It excels in the pulsed GMAW mode and additional applications include heat exchangers and recuperators, power plant reheater tubes etc.
- It would produce a moderately soft arc and high welding speed.
- K-409TiC provides low spatter, excellent bead appearance and porosity resistance.
- Higher Ti component improves resistance to porosity, good wetting behaviour when compared to the K-409Ti wire.
- High deposition efficiency and high speed welding on the thin plate are possible.

Welding positions



Polarity & shielding gas

- Mix: Ar+2% O₂ (15-25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Ti
Mix	0.02	0.44	0.62	0.011	0.005	11.50	1.00

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
EN ISO 17633-B		min. 450	min. 15	
Example	480	530	24	CO ₂

¹³⁷ After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current	PA/1G	180 ~ 260	(15 ~ 20mm)
(Amp.)	PC/2G	(22 ~ 25)	

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

Classifications

EN ISO 17633-B:2010 : TS 409-M M13 0

AWS A5.22-2012 : E409T0-G

Description

- K-409TiT is developed to meet the needs of the automotive exhaust fabricators that desired a metal cored wire. It excels in the pulsed GMAW mode and additional applications include heat exchangers and recuperators, power plant reheater tubes etc.
- Wire is a metal type of flux cored wire for high speed welding on the plates as possible
- It would produce a moderately soft arc and low spatter generation and also provide excellent bead appearance and porosity resistance.
- Slag quantity is almost the same as a solid wire and deposition rate is up to 20% higher than solid wire's one.

Welding positions**Polarity & shielding gas**

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Ti
Mix	0.02	0.50	0.45	0.011	0.005	12.10	0.80

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
EN ISO 17633-B		min. 450	min. 15	
Example	460	520	25	Mix

☞ After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~25)	(15 ~20mm)

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

K-410NiMoT

Martensitic Stainless welding wire (13%Cr-Ni, Hardfacing)

Classifications

EN ISO 17633-A:2008	: T 13 4 R M 4	AWS A5.22-15	: E410NiMoT0-4
EN ISO 17633-B:2008	: TS410NiMo-FM0	JIS Z 3323	: TS410NiMo-FM0

Description

- K-410NiMoT is designed for MAG welding of soft-martensite stainless alloys of the 13%Cr-4%Ni-Mo types.
(AISI 403, 405, 410, 420, JIS SCS3, SCS6, ASTM CA15M, CA6NM)
- Wire is a metal type of flux cored wire for flat and horizontal position welding.
- K-410NiMoT features very good ductility, CVN toughness and crack resistance.
- The machinability of the weld metal depends largely upon the kind of base metal and degree of dilution.

Welding positions



Polarity & shielding gas

- Mix: Ar+20% CO₂ (15~25l/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo
Mix	0.04	0.23	0.36	12.20	4.10	0.70

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	PWHT
AWS A5.22		min. 760	min. 15	
EN ISO 17633-B	min. 500	min. 750	min. 15	
Example (Mix)	745	900	18	620°Cx1Hr

^① After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- Preheating and interpass temperatures in case of thick-walled sections 100~160°C and maximum heat input 15kJ/cm and tempering at 580~620°C.

Package

Dia. (mm)	1.2	1.4	1.6
Spool (kg)	5, 12.5, 15, 20		
Pailpack (kg)	100 ~ 300		

K-410NiMoTC

Martensitic Stainless welding wire (13%Cr-Ni, Hardfacing)

Classifications

EN ISO 17633-A:2008	: T 13 4 P C 1	AWS A5.22-15	: E410NiMoT1-1
EN ISO 17633-B:2008	: TS410NiMo-FC1	JIS Z 3323	: TS410NiMo-FC1

Description

- K-410NiMoTC is designed for MAG welding of soft-martensite stainless alloys of the 13%Cr-4%Ni-Mo types (AISI 403, 405, 410, JIS SCS3, SCS6, SB410, ASTM CA15M, CA6NM)
- Wire is a titania type of flux cored wire for all-position welding with 100%CO₂ gas.
- It features self-detaching slag, spray-like transfer, low spatter generation, smooth bead surface and high X-ray safety.
- The machinability of the weld metal depends largely upon the kind of base material and the degree of welding dilution.

Welding positions



Polarity & shielding gas

- CO₂: 100% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	Mo
CO ₂	0.04	0.55	0.45	12.20	4.80	0.55

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	PWHT
AWS A5.22		min. 760	min. 15	
EN ISO 17633-B	min. 500	min. 750	min. 15	
Example (CO ₂)	900	950	18	620°Cx1Hr

^① After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- Preheating and interpass temperatures in case of thick-walled sections 100~160°C and maximum heat input 15kJ/cm and tempering at 580~620°C.

Package

Dia. (mm)	1.2	1.4	1.6
Spool (kg)	5, 12.5, 15, 20		
Pailpack (kg)	100 ~ 300		

Classifications

EN ISO 17633-A:2008	: T 13 R C(M) 4	AWS A5.22-13	: E410T0-1/4
EN ISO 17633-B:2008	: TS410-FB0	JIS Z 3323	: TS410-FB0

Description

- K-410T is designed for MAG welding of martensite stainless alloys of the 13%Cr types and used for surfacing of sealing faces of valves for gas, water, and steam piping system at service temperatures up to 450°C.
- Wire is a metal type of flux cored wire for flat and horizontal position welding.
- K-410T is suitable for the first layer of corrosion resistant weld claddings.

Welding positions**Polarity & shielding gas**

- CO₂: 100% CO₂,
- Mix: Ar+20% CO₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr
CO ₂	0.07	0.28	0.35	0.012	0.005	12.85
Mix	0.07	0.34	0.45	0.011	0.005	13.00

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	PWHT
EN ISO 17633-B		min. 450	min. 15	
Example (CO ₂)	380	530	28	750°C×1Hr

☞ After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

- Refer to page 303 for more information on usage
- For joint welding, preheating to 200~300°C is recommended and tempering at 700~750°C to increase toughness.

Package

Dia. (mm)	1.2	1.4	1.6
Spool (kg)	5, 12.5, 15, 20		
Pailpack (kg)	100 ~ 300		

K-430LNb

Ferritic Stainless welding wire (Muffler, 18%Cr-Nb(Cb))

Classifications

EN ISO 17633-B:2008 : TS430Nb-MA0 JIS Z 3323 : TS430Nb-MA0

Description

- K-430LNb is designed for MAG welding of stainless steels of the 17%Cr-Nb steels and is suitable for automotive exhaust fabrications such as front pipe, bellows, flange etc (AISI 430, 430Ti, 431)
- It is a metal type of flux cored wire for high speed welding on the plate as possible.
- It would produce a moderately soft arc, low spatter generation and slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- It has the high tensile strength at the high temperature atmosphere.

Welding positions



Polarity & shielding gas

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Nb(Cb)
Mix	0.02	0.26	0.27	0.009	0.005	17.80	0.56

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
JIS Z 3323		min. 450	min. 13	
Example	480	530	22	Mix

☞ After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~ 25) (15 ~ 20mm)

Package

Dia. (mm)	1.2	1.32
Spool (kg)	12.5, 15	
Pailpack (kg)	100 ~ 200	

Classifications

EN ISO 17633-B:2008 : TS430Nb-MA0 JIS Z 3323 : TS430Nb-MA0

Description

- K-430LNbE is designed for MAG welding of stainless steels of the 17%Cr-Nb steels and is suitable for automotive exhaust fabrications such as front pipe, bellows, flange etc (AISI 430, 430Ti, 431)
- It is a metal type of flux cored wire for high speed welding on the plate as possible.
- It would produce a moderately soft arc, low spatter generation and slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- It has the high tensile strength at the high temperature atmosphere.
- It has a deeper penetration depth than K-430LNb.

Welding positions



Polarity & shielding gas

- Mix: 100% Ar (15~25l/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Nb(Cb)
Mix	0.02	0.42	0.27	0.002	0.005	15.97	0.53

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
JIS Z 3323		min. 450	min. 13	
Example	400	510	25	100%Ar

[※] After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~ 25)	(15 ~ 20mm)

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

Classifications

AWS A5.22-15 : E430T0-G

Description

- K-430T is designed for MAG welding of ferrite stainless alloys of the 17%Cr-Ti types and suitable for automotive exhaust fabricators such as front pipe, bellows, flange, etc (AISI 409, 430Ti, ASTM A176I)
- Wire is a metal type of flux cored wire for high speed welding on the plate as possible and It would produce a moderately soft arc and high low spatter generation.
- K-430T provide higher corrosion resistance, heat resistance due to high alloy designs and also suitable for surfacing of sealing faces of gas, water and steam valves.

Welding positions**Polarity & shielding gas**

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Ti
Mix	0.02	0.61	0.49	0.010	0.007	16.80	1.00

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
AWS A5.22		min. 450	min. 20	
Example	475	535	25	Mix

[※] After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~25)	(15 ~20mm)

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

K-436T

Ferritic Stainless welding wire (Muffler, 18%Cr-Nb(Cb))

Classifications

Not required

Description

- K-436T is designed for MAG welding of stainless steels of the 17%Cr-1%Mo-Ti types and suitable for automotive exhaust fabricators such as front pipe, bellows, flange, etc (JIS 436L/436J1L)
- Wire is a metal type of flux cored wire for high speed welding on the plate as possible.
- It would produce a moderately soft arc and high low spatter generation, and the Mo component in weld metal improves good crack resistance and heat resistance.
- It is also suitable for surfacing of sealing faces of gas, water and steam valves.

Welding positions



Polarity & shielding gas

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Mo	Ti
Mix	0.03	0.35	0.63	17.50	1.10	0.50

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
Example	385	490	23	Mix

^① After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~ 25)	(15 ~ 20mm)

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

Classifications

Not required

Description

- K-439T is designed for MAG welding of stainless steels of the 18%Cr-Ti types and suitable for automotive exhaust fabrications such as front pipe, bellows, flange etc. (AISI 430, 430Ti, 431)
- Wire is a metal type of flux cored wire for high speed welding on the plate as possible.
- It would produce a moderately soft arc and low spatter generation.
- Slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- K-439T has the high tensile strength at the high temperature atmosphere.

Welding positions**Polarity & shielding gas**

- Mix: Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Ti
Mix	0.03	0.45	0.55	0.010	0.015	16.50	0.90

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
Example	390	495	24	Mix

^{*)} After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

	Dia.(mm)	1.2	Stick-out
Current (Amp.)	PA/1G PC/2G	180 ~ 260 (22 ~25)	(15 ~20mm)

Package

	Dia. (mm)	1.2	1.32
Spool (kg)		12.5, 15	
Pailpack (kg)		100 ~ 200	

K-439TE

Ferritic Stainless welding wire (Muffler, 18%Cr-Ti)

Classifications

Not required

Description

- K-439TE is designed for MAG welding of stainless steels of the 18%Cr-Ti types and suitable for automotive exhaust fabrications such as front pipe, bellows, flange etc. (AISI 430, 430Ti, 431)
- Wire is a metal type of flux cored wire for high speed welding on the plate as possible.
- It would produce a moderately soft arc and low spatter generation.
- Slag quantity is almost the same as solid wire and deposition rate is up to 20% higher than solid wire's one.
- K-439TE has the high tensile strength at the high temperature atmosphere.

Welding positions



Polarity & shielding gas

- Mix: 100%Ar,
Ar+2% O₂ (15~25ℓ/min)
- DCEP (DC+)

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	P	S	Cr	Ti
Ar	0.03	0.42	0.53	0.01	0.01	17.0	0.60

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	Remarks
Example	400	500	24	Ar

※ After machining, but before testing, the specimen was aged at a temperature 100°C for up to 48 hours then allowed to cool to room temperature.

Notes on usage and welding condition

Dia.(mm)	1.2	Stick-out
Current (PA/1G)	180 ~ 260	(15 ~ 20mm)
(Amp.) (PC/2G)	(22 ~ 25)	

Package

Dia. (mm)	1.2	1.32
Spool (kg)	12.5, 15	
Pailpack (kg)	100 ~ 200	

Classifications

AWS A5.22-15 : E308LT0-3

Description

- K-NGS308L is designed for self-shielded welding of low carbon 18%Cr-8%Ni stainless steel and used to join STS 304, 304L, 308, 201, 202, 203 etc.
- It is a lime-titania type of flux cored wire for flat and hofizontal welding position without shielding gas.
- It features easy slag removal, open transfer, low spatter generation, smooth bead surface and high X-ray safety.
- The weld metal contains low ferrite contents in their austenitic micro structures and provides good corrosion resistance, heat resistance properties.
- The wire should be kept in an area of low humidity after usage to protect to absorbed moisture in rainy season or a dewfall environment.

Welding positions**Polarity & shielding gas**

- DC+, Self-shield

Typical chemical composition of all-weld metal (%)

Shielding gas	C	Si	Mn	Cr	Ni	FN
None	0.02	0.45	1.12	20.50	9.70	10.0

Typical mechanical properties of all-weld metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) -20°C	Remarks
AWS A5.22		min. 520	min. 35		
Example	440	620	39	85	None

Notes on usage and welding condition

Dia.(mm)	0.8	0.9	1.2
Current (Amp.)	40 ~ 120	60 ~ 140	100 ~ 180
	PA/1G	60 ~ 140	100 ~ 180
	PC/2G	50 ~ 120	60 ~ 140

- It is more convenient to weld with portable welding machine

Package

Dia. (mm)	0.8	0.9	1.2
Spool (kg)	1, 5	12.5, 15, 20	