Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-3
ISO 14341-A : G 42 2 M G2Si

General description

Solid wire for welding general construction in mild steel
High impact values
Stable arc and excellent feedability

Shielding gases (acc. ISO 14175)

M21	Mixed gas Ar+ >15-25% CO_2
C1	Active gas 100% CO_2

Approvals

ABS	BV	DNV	GL	LR
3YSA	SA3,3YM	IIIYMS	3YS	3S,3YS

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.1	0.6

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) -20°C
Typical values	M21	AW	500	575	25	95

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B. D, AH32 to DH36
Cast steel	EN10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L451MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm)		
	0.8	1.0	1.2
15 kg spool B300	X	X	X

Other sizes and packaging on request

Mild steel solid rod

Classification

AWS A5.18/A5.18M : ER70S-3
EN ISO 636-A : W 42 5 W2Si

General description

Solid rod for welding general construction in mild steel
High impact values

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)

Approvals

TÜV
+

Chemical composition (w%),Typical, rod

C	Mn	Si
0.08	1.1	0.6

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) -20°C	Impact ISO-V(J) -50°C
Typical values	I1	AW	450	560	26	170	100
		SR 15h/620°C	410	525	26		80

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B. D, AH32 to DH36
Cast steel	EN10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L451MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 1.6	2.0	2.4	3.0
2 and 5 kg tube	X	X	X	X

Other sizes and packaging on request

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 46 4 M G3Si1

General description

Solid wire for welding general construction in mild steel
Smooth bead appearance
Stable arc and excellent feedability

Shielding gases (acc. ISO 14175)

M21	Mixed gas Ar+ >15-25% CO_2
C1	Active gas 100% CO_2

Approvals

ABS	BV	DNV	GL	LR	RINA	TÜV	RMRS
3SA,3YSA	SA3YM	IIIYMS	3YS	3S,3YS	3YS	+	3S,3YS

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.4	0.8

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	Impact ISO-V(J) -40°C
Typical values	M21	AW	520	600	25	110	70

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 0.6	0.8	1.0	1.2	1.6
5 kg plastic spool S200	X	X	X	X	
15 kg spool B300		X	X	X	X
15 kg spool S300	X				
250 kg Accutrak® Drum		X	X	X	
300 kg metal coil				X	

Other sizes and packaging on request

Mild steel solid rod

Classification

AWS A5.18/A5.18M : ER70S-6
EN ISO 636-A : W 42 5 W3Si1

General description

Solid rod for welding general construction in mild steel
Smooth bead appearance

Shielding gases (acc. ISO 14175)

I1 Inert gas Ar (100%)

Approvals

TÜV
+

Chemical composition (w%),Typical, rod

C	Mn	Si
0.10	1.5	0.9

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) -20°C	-30°C	-50°C
Typical values	I1	AW	460	580	26	170	170	120

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 2.0	2.4
2 and 5 kg tube	X	X

Other sizes and packaging on request

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 42 3 M G4Si1

General description

Solid wire with increased manganese content for GMA welding of structural steel

Shielding gases (acc. ISO 14175)

M21	Mixed gas Ar+ >15-25% CO_2
C1	Active gas 100% CO_2

Approvals

TÜV
+

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.70	0.85

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) +20°C	-20°C	-50°C
Typical values	M21	AW	500	650	26	150	80	50

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B,D, AH32 to DH 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 0.8	1.0	1.2	1.6
15 kg spool B300	X	X	X	X

Other sizes and packaging on request

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 42 4 M G3Si1 / G 42 2 C G3Si1

General description

Solid wire for semi-automatic and automatic welding applications
Good feedability, consistent welding performance
Very good weldability, stable arc, and low spatter
High productivity

Shielding gases (acc. ISO 14175)

M21 Mixed gas Ar+ >15-25% CO_2
C1 Active gas 100% CO_2

Approvals

ABS	BV	DB	DNV	GL	LR	RINA	TÜV	RS
+	+	+	+	+	+	+	+	+

Chemical composition (w%) typical wire

C	Mn	Si
0.07	1.45	0.85

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	-30°C	-40°C
Typical values	Required		min. 420	500-640	min. 20		min. 47	
	M21	AW	470	580	28		100	75
	C1		440	550	26	100		

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to DH 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 0.8	1.0	1.2	1.4	1.6
15 kg metal basket - K300	X	X	X	X	X
15 kg spool B300 - D300	X	X	X	X	X
250 kg Accutrak® Drum	X	X	X		
380 kg Accutrak® Drum	X	X	X	X	X
500 kg Accutrak® Drum	X	X	X	X	X

Other sizes and packaging on request

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 46 5 M G4Si1/G 42 4 C G4Si1

General description

Solid wire for semi-automatic and automatic welding applications
Good feedability, consistent welding performance
Very good weldability, stable arc, and low spatter
High productivity

Shielding gases (acc. ISO 14175)

M21 Mixed gas Ar+ >15-25% CO_2
C1 Active gas 100% CO_2

Approvals

DB	TÜV	RS
+	+	+

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.7	0.85

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) -40°C	Impact ISO-V(J) -50°C
Typical values	Required		min. 460	530-680	min. 20	min. 47	
	M21	AW	490	590	27		90
	C1		460	560	25	70	

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates		Grade A, B, D, AH32 to DH 36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/	P235T1, P235T2, P275T1
	EN 10217-1	P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420, S460
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML

Packaging and available sizes

Unit type	Diameter (mm) 0.8	1.0	1.2	1.4	1.6
15 kg metal basket - K300	X	X	X	X	X
15 kg spool B300 - D300	X	X	X	X	X
250 kg Accutrak® Drum	X	X	X		
380 kg Accutrak® Drum	X	X	X	X	X
500 kg Accutrak® Drum	X	X	X	X	X

Other sizes and packaging on request

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 42 4 M G3Si1 / G 38 3 C G3Si1

General description

Solid wire for welding of structural steels
Excellent feedability and very consistent welding performance
No adjustments of welding parameters
Tight and stable arc with extremely low spatter
Better bead profile and appearance
Ultimate GMAW wire for robotics and hard automation
Also available in AccuTrak®

Shielding gases (acc. ISO 14175)

M21 Mixed gas Ar+ >15-25% CO_2
C1 Active gas 100% CO_2

Approvals

BV	DNV	GL	LR	TÜV
S3YM	IVY40	4Y40S	3S,3Y40S	+

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.55	0.85

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -30°C	-40°C	-50°C
Typical values	M21	AW	490	590	27	100	60	40
	C1	AW	460	550	29	80	40	

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 t/m DH36
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB. L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M S420ML

Packaging and available sizes

Unit type	Diameter (mm) 0.8	1.0	1.2	1.6
15 kg spool B300	X	X	X	
15 kg spool S300	X	X	X	X
250 kg Accutrak® Drum	X	X	X	

Other sizes and packaging on request

SupraMIG®: rev. EN 23

Mild steel solid wire

Classification

AWS A5.18/A5.18M : ER70S-6
ISO 14341-A : G 46 4 M G4Si1 / G 42 3 C G4Si1

General description

Solid wire with increased manganese for semi-automatic welding and robotic applications
Excellent feedability and very consistent welding performance
Very good weldability, tight and stable arc with extremely low spatter, low fume productions
Better bead profile and appearance
Highest productivity
Also available in AccuTrak®

Shielding gases (acc. ISO 14175)

M21 Mixed gas Ar+ >15-25% CO_2
C1 Active gas 100% CO_2

Approvals

BV	DNV	GL	TÜV
S3Y40M	IVY40MS	4Y42S	+

Chemical composition (w%) typical wire

C	Mn	Si
0.08	1.70	0.85

Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	Impact ISO-V(J) -40°C
Typical values	M21	AW	500	650	26	80	80
	C1	AW	490	620	30	60	50

Materials to be welded

Steel grades	Standard	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 t/m DH36
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB, L415NB
	API 5LX	X42, X46, X52, X60
	EN 10216-1/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steel	EN 10025 part 3	S275, S355, S420
	EN 10025 part 4	S275M, S275ML, S355M, S355ML, S420M, S420ML, S460

Packaging and available sizes

Unit type	Diameter (mm) 0.8	1.0	1.2
15 kg spool B300	X	X	X
250 kg Accutrak® Drum	X	X	X

Other sizes and packaging on request

SupraMIG Ultra®: rev. EN 23