WELD STAR®

WELDING CONSUMABLES

WIRES FOR MILD AND LOW-ALLOY STEELS

TECHNICAL DATA SHEETS

50 A family business engineered through generations **since** 1971

WELD STAR | WELDING CONSUMABLES

Founded in 1983 Wilkinson Star is one of the UK's leading importers and wholesale distributors of industrial and welding equipment. We offer a comprehensive range of welding and resistance welding equipment, welder generators, generators and lighting towers along with a comprehensive range of welding consumables, PPE equipment, gas equipment, air compressors, air accessories and air & hand tools.

In our aim to provide unrivalled service and complete customer satisfaction, all our industry leading brands are supported by our world class on site Welding Training Academy/Demonstration Centre and Marketing Services Facility. Furthermore our technical expertise for product innovation and development is at the core of our Technical Support Centre and this has been further enhanced with the addition of the Inverter Technology Centre at Manchester in 2015. We have been assembling air compressors in our Manchester based Fiac Production Facility since 1991.

We offer over 900 man years of knowledge in our industry, offering over 20,000 quality product lines, serving over 2,000 authorised UK outlets and export partners with a strong commitment to widen our product ranges to meet the growing demands of our partners in the years ahead.

New for 2022 is our acquisition of Wardley Cross, opposite sites to our headquarters. Wardley Cross is not only home to our 2m stockholding of wires and consumables but also our new marketing and design centre and our state of the art 150m^2 exhibition space - the first of its kind in the UK.

Sales & Technical Support, Ordering & Delivery

Our Customer Sales & Technical Centre is open Monday to Friday 8.30am to 5.00pm. Our national sales team of Area Managers and Technical Engineers cover the whole of the UK and Eire.

Intertek

50 A family business engineered through generations **since 1971**

WILKINSON STAR

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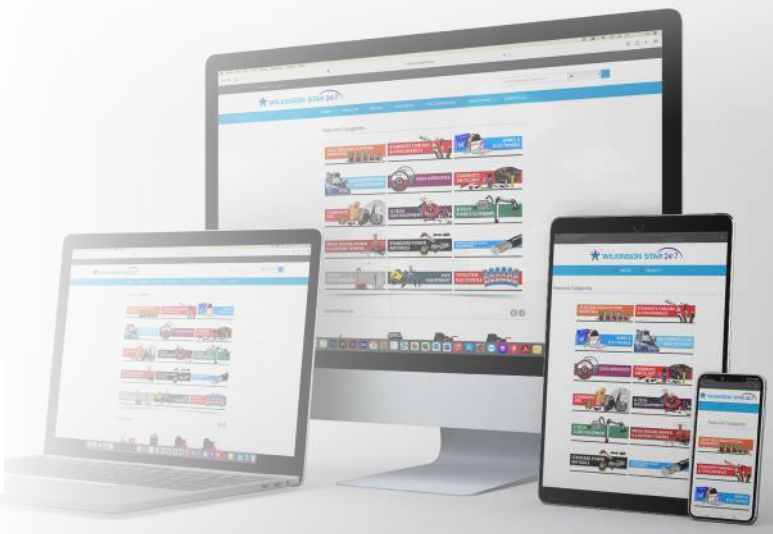


What is Green Wire?

Green wire is virgin wire that's made from a primary raw material sourced from specialised steel mills. A lot of wires in the market today are manufactured from recycled scrap materials sourced from anywhere in the world, this ultimately can result in a much lower quality product.

Some advantages of using Green Wire;

- Less fumes during welding
- Rapid start of the arc
- Constant feeding with lower resistance
- Stable arc and uninterrupted welding
- Significant reduction in spatter
- Excellent mechanical properties
- Good bead appearance
- Reassurance of consistent quality

Wilkinson Star's Approvals

CE acc. EN 13479

TÜV 1153

DB Systemtechnik

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate of conformity of the factory production control

0036 - CPR - S 129.2021.003

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of March 09th, 2011 (Construction Products Regulation - CPR), this certificate applies to the construction product

filler metals acc. to EN ISO 636, EN ISO 2560, EN ISO 3581, EN ISO 14171, EN ISO 14341, EN ISO 14343, EN ISO 16834, EN ISO 18273, EN ISO 21952

produced by or for

Wilkinson Star Limited
Shield Drive, Wardley Industrial Estate Worsley
M28 2WD Manchester

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in annex ZA of the harmonised standard

EN 13479:2017

under system 2+ are applied and

the factory production control fulfils all the prescribed requirements set out above.

This certificate was first issued on 11.02.2021 and recurring on 04.05.2022 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly and latest on 11.02.2024.

Further information about the product parameters and description of the products are included in the annex 1 to this certificate.

In order to adhere the validity an annual surveillance audit is required.

Munich, May 10th, 2022 (revision of May 4th, 2022)

Notified Body, No. 0036

(S. Loibl)
Certification Body
Material and Welding Technology

EQ3056174

TÜV SÜD Industrie Service GmbH, Westendstr. 199, 80686 Munich, Germany

TÜV-Verband-Kennblatt für Schweißzusätze
gemäß TÜV-Verband-Merkblatt 1153 und DIN EN 14532

TÜV VERBAND	1 Hersteller/Lieferer: Wilkinson Star Limited mit Herstellerwerken gemäß TÜV-Verband Liste 1000	2 Nummer: 19928.00 31.05.2022

3 Schweißzusatz*: Drahtelektrode
4 Marke*: Weld Star | SG2 (G3Si1)
7 Typ*: ISO 14341-A - G 42 3 C1/ G 42 4 M21 3Si1
11 Durchmesserbereich: 0,8 bis 1,6 mm mm
12 Hilfsstoffe: ISO 14175 - M2,M3, C1
13 Die Gültigkeit wird durch Erscheinen des Kennblattes im Schweißzusatzwerkstoffportal bescheinigt.
15 Wärmebehandlung (Wb) nach dem Schweißen und Werkstoffe

Pos	Wb	Gruppe / Werkstoff 1	Text	Gruppe / Werkstoff 2	Bem.
	U	Gruppe 1.1			
	U	Gruppe 1.2			
	U	Gruppe 1.3 (ReH max. 420 MPa)			

16 Die Werkstoffeinteilung entspricht ISO 15608:2000
21 Wurzelschweißbarkeit: nachgewiesen
23 Wanddicke: bis 40 mm
24 Stromart und Polung: G+
25 Schweißposition nach DIN EN ISO 6947:1997-05: PA, PB, PC, PD, PE, PF, PG
26 Höchste Betriebstemperatur im Kurzzeitbereich wie Grundwerkstoff, jedoch max.: 350 °C
27 Höchste Betriebstemperatur im Langzeitbereich max.: --- °C
28 Tiefste Betriebstemperatur wie Grundwerkstoff, jedoch nicht tiefer als: -40 1) °C
29 Berechnungskennwert: wie Grundwerkstoff
30 Bei Einsatz im Langzeitbereich: ---
31 Korrosionsbeständigkeit nachgewiesen nach: ---
32 Bemerkungen:
1) Bei Verwendung von Schutzgasen der Gruppe C1, gilt die tiefste Betriebstemperatur wie Grundwerkstoff, jedoch nicht tiefer als -30 °C.
33 Die Eignungsprüfung des Schweißzusatzes erfolgte auf der Grundlage des TÜV-Verband-Merkblattes 1153 und der DIN EN 14532. Soweit in Rubrik 32 – Bemerkungen – keine abweichenden Prüfgrundlagen genannt sind, ist dieser Schweißzusatz unter Beachtung des Anhangs I Abschnitt 4 der Richtlinie 2014/68/EU für den Einsatz nach Druckgeräterichtlinie geeignet.
34 Erläuterungen: A - angelassen; L - lösungsgeglüht u. abgeschreckt; N - normalgeglüht; S - spannungsarm geglüht; St - stabilgeglüht; U - ungeglüht; V- vergütet; W - weichgeglüht; G+ - Gleichstrom Pluspol; G- - Gleichstrom Minuspol; W - Wechselstrom
35 Erstellt durch: TÜV SÜD Industrie Service GmbH, München

Die Vervielfältigung, die Verbreitung, der Nachdruck und die Gesamtwiedergabe auf fotomechanischem oder ähnlichem Wege bleiben, auch bei auszugsweiser Verwertung, der vorherigen Zustimmung des Herausgebers vorbehalten. Herausgeber: TÜV-Verband e. V. Vertrieb: TÜV-Media GmbH, Am Grauen Stein, 51105 Köln - Unternehmensgruppe TÜV Rheinland Group

*) Angaben des Herstellers

DB Systemtechnik
Zertifizierungsstelle für Schweißzusätze
14774 Brandenburg-Kirchmöser

Zulassungszertifikat
für
Schweißzusätze und Schweißhilfsstoffe

Hersteller: Wilkinson Star Limited
Shield Drive, Wardley Industrial Estate Worsley
M28 2WD Manchester

Schweißzusatz:	SG-Drahtelektrode	**DB-Zulassungs-Nr.:**	42.286.01
Markenbezeichnung:	Weld Star I SG2 (G3Si1)	**Geltungsdauer:**	30.06.2025
Normbezeichnung:	DIN EN ISO 14341-A-G 42 3 C1/ G 42 4 M21 3Si1		

Geltungsbereich aufgrund der nach VA 918 490 durchgeführten Eignungsprüfung:

Werkstoffgruppe nach ISO/TR 15608 1):	Mit den Schutzgasen nach DIN EN ISO 14175 - C1, M2, M3: 2.1 ($R_{eH} \leq 420$ MPa)
Schweißverfahren ISO 4063:	135
Schweißpositionen ISO 6947:	PA, PB, PC, PD, PE, PF, PG
Stromart und Polung:	= (+)
Durchmesserbereich	0,8 - 1,6 mm
Bemerkungen/Schweißbedingungen:	./.

Kirchmöser, den 15.06.2022

(Dip.-Ing. (FH) Kopiec – Leiter Zertifizierungsstelle)

1) Erläuterungen zu den mitgeltenden Werkstoffen sind der VA 918 490, Anhang 3 zu entnehmen.
2) Grundlage für die Zertifizierung ist die VA 918 490, auf Basis der DIN EN 14532-1-3

NOT APPLICABLE TO ALL PRODUCT LINES

WELD STAR | MIG/GMAW WIRES

SG2 - G3Si1

Mild Steel **MIG/GMAW**

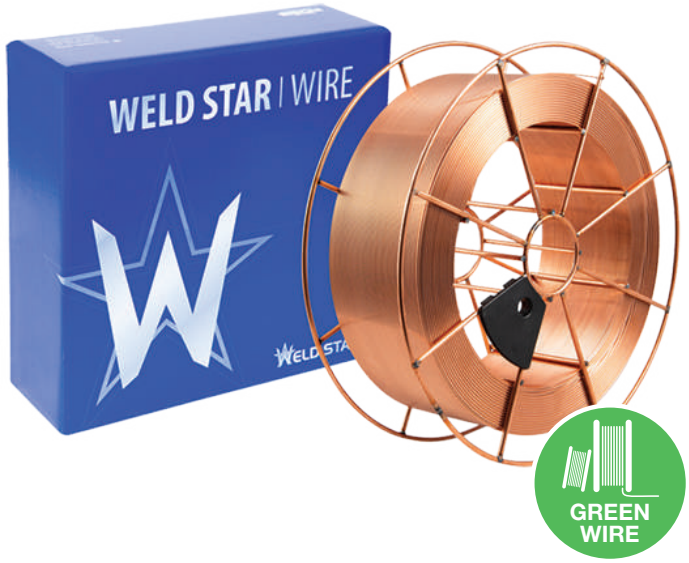
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 42 4 M21 3Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Vacuum-sealed plastic bag packaging to prevent moisture absorption.
- Fitted with alignment hole clip to ensure smooth feeding.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-180	80-230	120-350
Voltage (V)	18-22	20-28	26-34

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
540	440	30	70	-30°C

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
580	460	26	90	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.07	0.85	1.45	<0.025	<0.025	<0.35	<0.15	<0.15	<0.15	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010200449	0.80	15	BS300 PLW	72
3010200451	1.00	15	BS300 PLW	72
3010200453	1.20	15	BS300 PLW	72

1kg, 5kg, D300 & Drums also available.

SG2 - G3Si1

Mild Steel **MIG/GMAW**

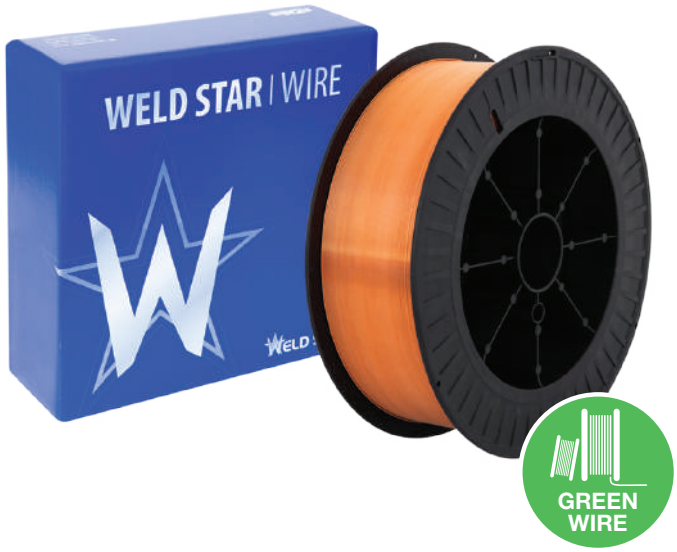
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 42 4 M21 3Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Vacuum-sealed aluminium foil packaging to prevent moisture absorption.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.60	0.80	1.00	1.20	1.60
Current (A)	50-100	60-180	80-230	120-350	220-500
Voltage (V)	15-20	18-22	20-28	26-34	28-38

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
540	440	30	70	-30°C

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
580	460	26	90	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.07	0.85	1.45	<0.025	<0.025	<0.35	<0.15	<0.15	<0.15	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010200522	0.60	15	D300 PLW	72
3010200523	0.80	15	D300 PLW	72
3010200525	1.00	15	D300 PLW	72
3010200527	1.20	15	D300 PLW	72
3010200454	1.60	15	D300 PLW	72

1kg, 5kg, BS300 & Drums also available.

SG2 - G3Si1 (ENDURANCE PAC) Mild Steel MIG/GMAW

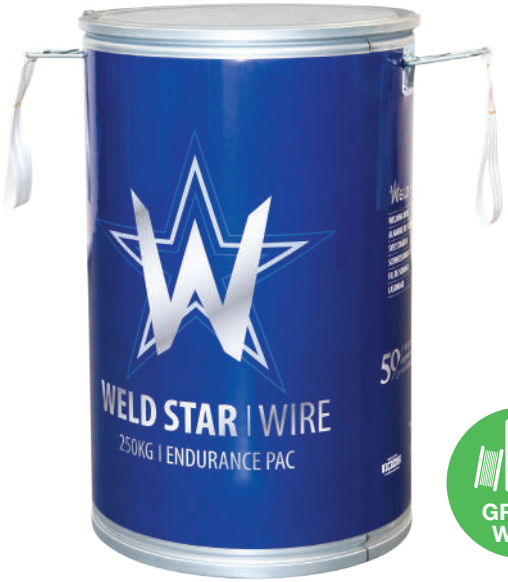
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 42 4 M21 3Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- Bulk wire drum system that offers a high productivity solution for continuous high volume welding applications.
- A copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Wire Length	0.80	1.00	1.20
Meters	68,375	43,062	29,625
Miles	42.50	26.76	18.41

Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-180	80-230	120-350
Voltage (V)	18-22	20-28	26-34

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
540	440	30	70	-30°C

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
580	460	26	90	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.07	0.85	1.45	<0.025	<0.025	<0.35	<0.15	<0.15	<0.15	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010250080	0.80	250	Drum	4
3010250100	1.00	250	Drum	4
3010250120	1.20	250	Drum	4

1kg, 5kg, D300 & BS300 spools also available.

SG3 - G4Si1

Mild Steel **MIG/GMAW**

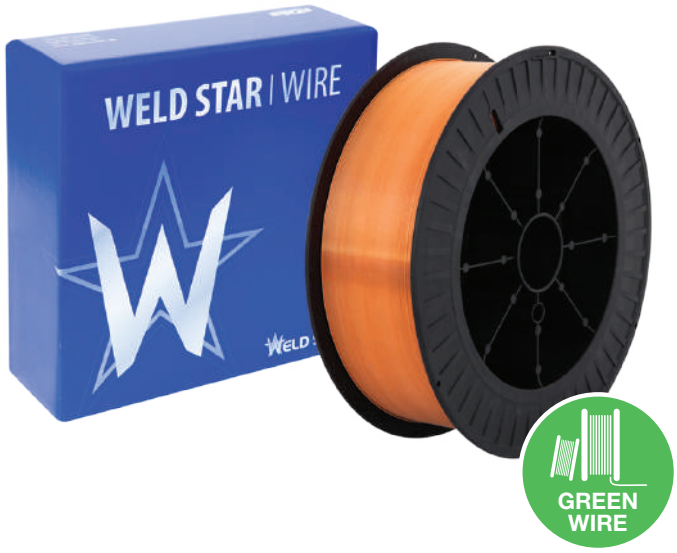
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 46 4 M21 4Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- The higher Si-Mn content increases the weld metal strength and leaves a good bead appearance.
- Designed for semi-automatic and full-automatic GMAW applications.
- Good mechanical properties at sub-zero temperatures down to -40ºC.
- Vacuum-sealed aluminium foil packaging to prevent moisture absorption.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-180	80-230	120-350
Voltage (V)	18-22	20-28	26-34

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
570	460	30	58	-30ºC

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
590	490	28	88	-40ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.08	0.95	1.70	<0.020	<0.020	<0.25	<0.15	<0.15	<0.050	<0.020	<0.030	<0.15

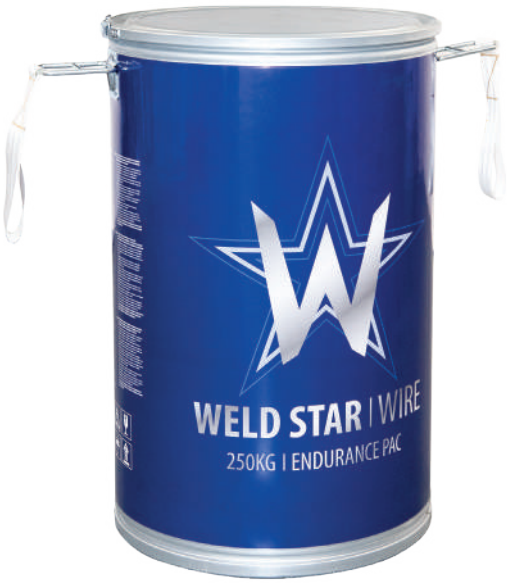
[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010301508	0.80	15	D300 PLW	72
3010301510	1.00	15	D300 PLW	72
3010301512	1.20	15	D300 PLW	72

Drums also available.

ENDURANCE PAC ACCESSORIES



Available on all mild and low-alloy products.

SG2 Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010250080	0.80	250	Drum	4
3010250100	1.00	250	Drum	4
3010250120	1.20	250	Drum	4

SG3 Packaging Data

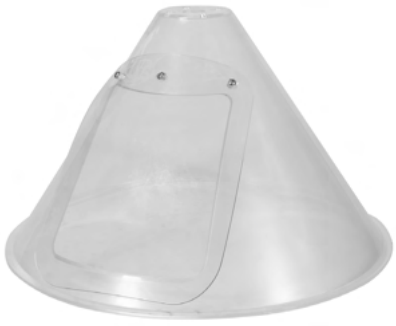
Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010301514	0.80	250	Drum	4
3010301516	1.00	250	Drum	4
3010301518	1.20	250	Drum	4

CF2 Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010200918	0.80	250	Drum	4
3010200922	1.00	250	Drum	4
3010200926	1.20	250	Drum	4

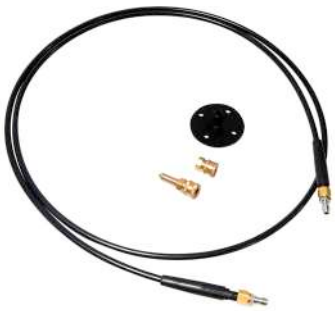
CF3 Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010201380	0.80	250	Drum	4
3010201384	1.00	250	Drum	4
3010201388	1.20	250	Drum	4



Dome
Plastic decoiling dome to suit our Endurance Pac drums.

Drum Dolly
Robust steel construction dolly designed for simple transporting of our Endurance Pac drums.



Conduit Kit
1x conduit with quick connect fittings
1x wire feeder inlet guide 12mm
1x dome base plate with quick connect

Part No.	Description	Quantity
8000200021	Endurance Pac - Plastic Dome	1
4000000125	Endurance Pac - Drum Dolly	1
8000000003	Endurance Pac - Feed Conduit - 3 Mtr Kit	1
8000000005	Endurance Pac - Feed Conduit - 5 Mtr Kit	1
8000000010	Endurance Pac - Feed Conduit - 10 Mtr Kit	1

CF2 - G3Si1 (Copper Free)

Mild Steel **MIG/GMAW**

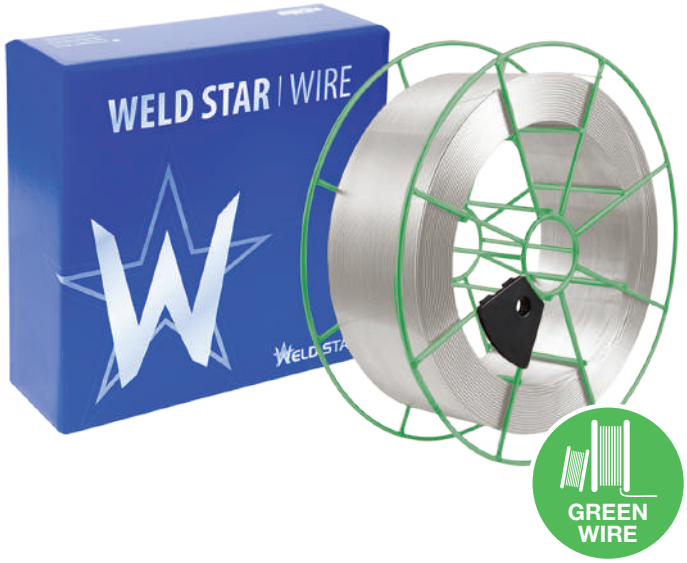
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 42 4 M21 3Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A non-copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- Environmentally friendly when compared against traditional copper wires offering less fume and smoke in the working environment.
- Advantages of a stable arc when working with increased welding speeds that achieves high quality welds with almost no spatter.
- Good mechanical properties at sub-zero temperatures down to -40ºC.
- Vacuum-sealed plastic bag packaging to prevent moisture absorption.
- Fitted with alignment hole clip to ensure smooth feeding.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-180	80-230	120-350
Voltage (V)	18-22	20-28	26-34

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
540	440	30	70	-30ºC

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
580	460	26	90	-40ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.07	0.85	1.45	<0.025	<0.025	0.010	<0.15	<0.15	<0.15	<0.020	<0.030	<0.15

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010200837	0.80	15	BS300 PLW	72
3010200839	1.00	18	BS300 PLW	56
3010200841	1.20	18	BS300 PLW	56

Drums also available.

CF3 - G4Si1 (Copper Free)

Mild Steel **MIG/GMAW**

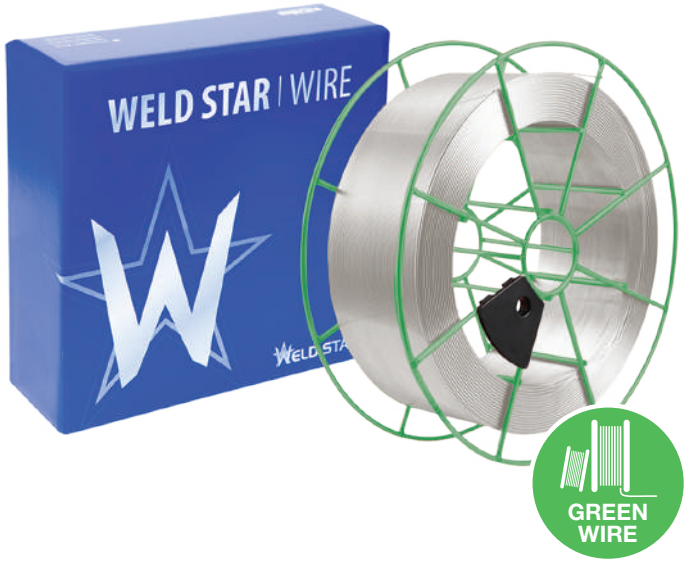
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 C1 / G 46 4 M21 4Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A non-copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- Environmentally friendly when compared against traditional copper wires offering less fume and smoke in the working environment.
- The higher Si-Mn content increases the weld metal strength and leaves a good bead appearance.
- Designed for semi-automatic and full-automatic GMAW applications.
- Good mechanical properties at sub-zero temperatures down to -40ºC.
- Vacuum-sealed plastic bag packaging to prevent moisture absorption.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-180	80-230	120-350
Voltage (V)	18-22	20-28	26-36

Mechanical Properties (Typical) - C1

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
570	460	36	58	-30ºC

Mechanical Properties (Typical) - M21

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
590	490	28	88	-40ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.08	0.95	1.70	<0.020	<0.020	0.010	<0.15	<0.15	<0.050	<0.020	<0.030	<0.15

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010201314	0.80	15	BS300 PLW	72
3010201316	1.00	18	BS300 PLW	56
3010201318	1.20	18	BS300 PLW	56

Drums also available.

ER 70S-2 (A15)

Mild Steel **MIG/GMAW**

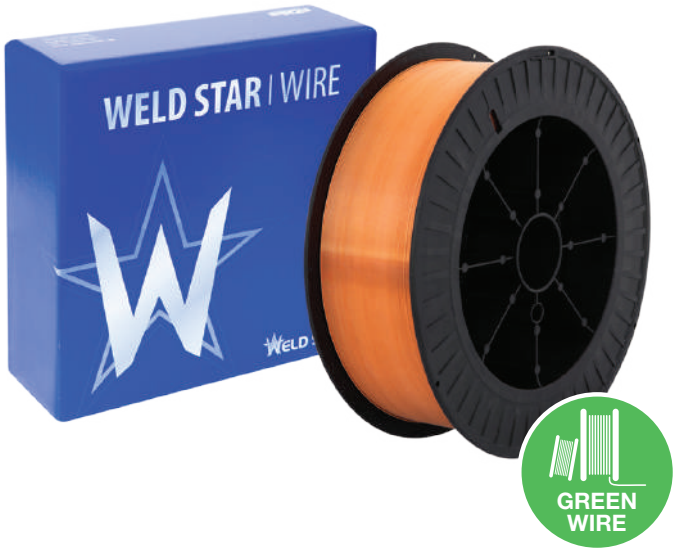
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 42 3 M21 2Ti

AWS-Standard - A5.18
AWS-Classification - ER 70S-2

Features and Applications

- Micro-alloyed steel, triple de-oxidised (Ti, Al, Zr) suitable for the welding of C-Mn and low-alloy steels.
- Ideal for use on greasy and oxidised surfaces subsequent to any coating processes. (i.e. galvanised steel).
- Works well at low temperatures.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on tanks, containers, car industry, structural work, household appliances, pipelines, boilers, naval & petrochemical sectors etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

A106, A210, A234 S355J2, S380N, P235GH, GS 45, P295GH, P355GH, S355N*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M20, M21, M33

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-190	80-290	120-370
Voltage (V)	18-24	18-32	18-35

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
560	480	24	>50	-30°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.06	0.60	1.20	<0.020	<0.020	<0.25	<0.10	<0.10	<0.050	0.100	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010202856	0.80	15	D300 PLW	72
3010202858	1.00	15	D300 PLW	72
3010202860	1.20	15	D300 PLW	72

ER 70S-A1 (A30)

Low Alloy **MIG/GMAW**

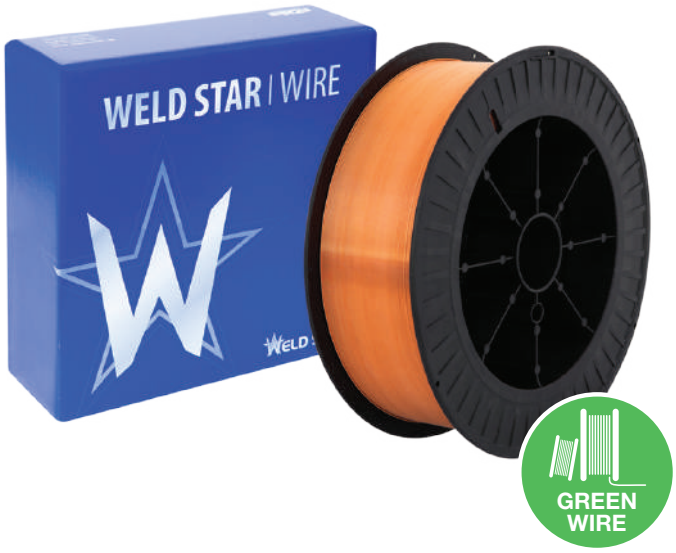
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 50 A M21 2Mo / G 42 A C1 2Mo

AWS-Standard - A5.28
AWS-Classification - ER 70S-A1

Features and Applications

- A copper coated heat-resisting wire containing 0.5% molybdenum.
- Designed for welding low alloy creep resistant steels that require a high tensile strength.
- Weld deposit highly resistant to cold cracking.
- Recommended working temperatures of up to 500°C.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on creep steels for construction steam boilers, pressure tanks, gas pipes, shipbuilding sector, petrochemical industry, heat exchangers, building of cranes, bridges etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

P295GH, P355GH, 16Mo3, 17Mo3, 14Mo6, S275, S355, S420, A210, A285, A335, A516, S275Ml, S355M, S420M, S460 15Mo3, 10MnMo45, 11MnMo45, GS60, GS22Mo4, 20MnMoNi5-5, 15NiCuMoNd5S, 17MnMoV64*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	100-180	150-270	220-350
Voltage (V)	18-24	22-23	26-34

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
610	520	25	150	+20°C
			>47	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti%
0.09	0.60	1.20	<0.015	<0.015	<0.25	<0.15	<0.10	0.50	<0.030	<0.020	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010203071	0.80	15	D300 PLW	72
3010203072	1.00	15	D300 PLW	72
3010203073	1.20	15	D300 PLW	72

ER 80S-D2 (A31)

Low Alloy **MIG/GMAW**

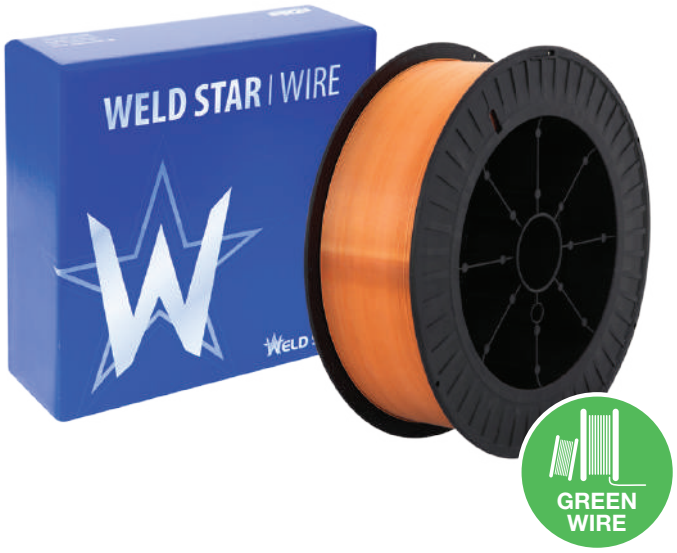
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 50 2 M21 4Mo

AWS-Standard - A5.28
AWS-Classification - ER 80S-D2

Features and Applications

- A copper coated heat-resisting wire containing 0.5% molybdenum.
- Weld deposit yields excellent quality and bead appearance on carbon and low-alloy steels.
- Suitable for operating at high currents giving a stable arc with a low amount of spatter.
- Recommended working temperatures of up to 500°C.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on creep steels for construction steam boilers, pressure tanks, gas pipes, shipbuilding sector, petrochemical industry, heat exchangers, building of cranes, bridges etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

P235G1TH, P255G1TH, P310GH, 16Mo3, A255, A350, A612, A210, A333, A316, A369, A106*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	100-180	150-270	220-350
Voltage (V)	18-24	22-23	26-34

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
670	550	24	70	-30°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.09	0.70	1.90	<0.015	<0.015	<0.25	<0.15	<0.10	0.50	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010203075	0.80	15	D300 PLW	72
3010203077	1.00	15	D300 PLW	72
3010203079	1.20	15	D300 PLW	72

ER 80S-G (A32)

Low Alloy **MIG/GMAW**

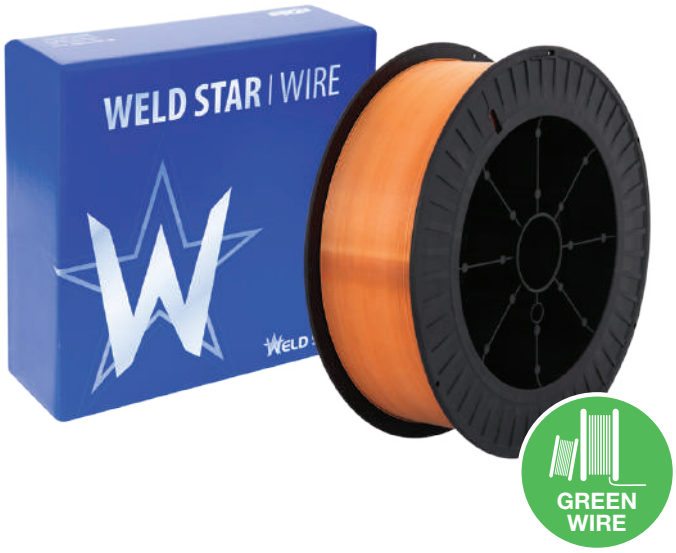
Standards

EN/ISO-Standard - 21952-A
EN/ISO-Classification - G CrMo1Si

AWS-Standard - A5.28
AWS-Classification - ER 80S-G

Features and Applications

- A low alloy copper coated wire with 1.15% Cr and 0.5% Mo content for welding creep resistant steels.
- Good resistant properties against hydrogen and sulphur agent attacks.
- Recommended working temperatures of up to 550°C.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on equipment for the chemical and ammonia synthesis process, heat exchangers, boilers, pipes, pressure vessels, petrochemical industries etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

13CrMo4-5, 15CrMo5, 16CrMoV4, G17CrMo5-5, G22CrMo5-4 A193 Gr.B7, A355 P11-12, A193: B7 13CrMo4-5, 15CrMo3, 13CrMo44, 15CrMo3, 13CrMo4 2, GS-25CrMo 4, GS-17CrMo55, GS17CrMo55, GS22CrMo4 H IV, 15CrMo3, 13CrMoV42, 13CrMo44, St44KL*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-200	80-260	100-360
Voltage (V)	16-28	17-32	18-34

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
630	520	23	100	+20°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti%	Nb %
0.090	0.65	1.05	<0.012	<0.015	<0.25	1.15	<0.15	0.50	<0.020	<0.030	<0.050	<0.010

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010201776	0.80	15	D300 PLW	72
3010201778	1.00	15	D300 PLW	72
3010201780	1.20	15	D300 PLW	72

ER 80S-Ni1

Low Alloy **MIG/GMAW**

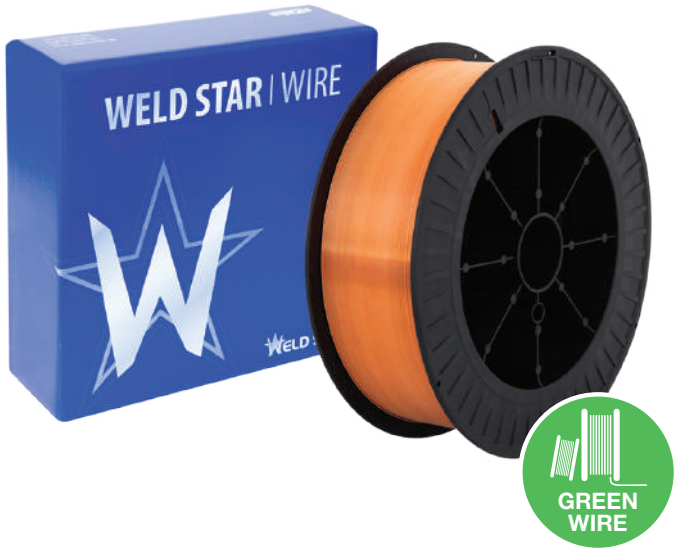
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 3Ni1

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni1

Features and Applications

- Copper coated, Ni-alloy (1,0% Ni), solid wire for low temperature, fine grained and austempering steels.
- Excellent impact toughness due to the addition of Nickel.
- Good mechanical properties at sub-zero temperatures down to -50°C.
- Especially suitable for use in the offshore industry.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on the building up of cranes, transport, tanks, industrial facilities, equipment in general, pipelines, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

A106, A515, A714, A131, A369, A210, L290, P235 T1/T2, P275 T1 ; L360, L415 ; P275T2, P355N ; X-42, X46, X62, X60 ; P235GH, P355GH ; A283, A285, A414, A372, A662, S275, S420, A516, A255, A333, A350, A612*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21, Argon + 1-5% O2

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	40-160	80-270	120-340
Voltage (V)	16-22	18-28	20-33

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
600	480	26	100	-50°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.09	0.70	1.20	<0.015	<0.015	<0.25	<0.15	1.00	<0.15	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6031100483	0.80	15	D300 PLW	72
6031100482	1.00	15	D300 PLW	72
6031100481	1.20	15	D300 PLW	72

ER 80S-Ni2

Low Alloy **MIG/GMAW**

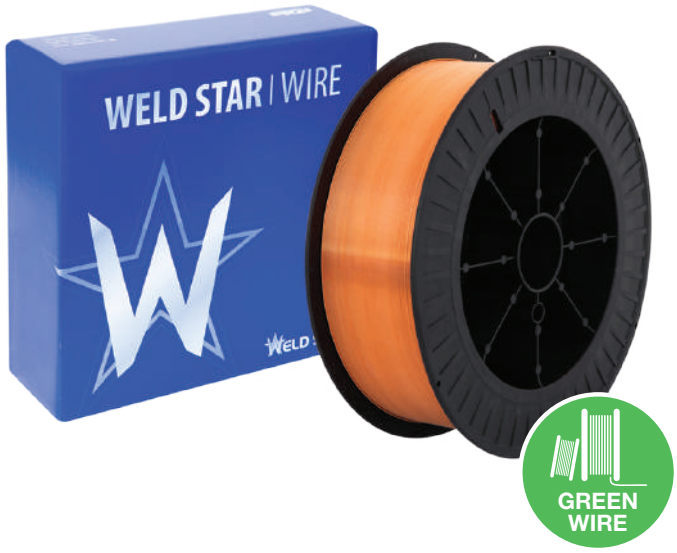
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 50 9 M23 2Ni2

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni2

Features and Applications

- Copper coated, Ni-alloy (2,5% Ni), solid wire for low temperature, fine grained and austempering steels.
- Excellent impact toughness due to the addition of Nickel.
- Good mechanical properties at sub-zero temperatures down to -60°C.
- Especially suitable for use in the offshore industry.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on the building up of cranes, transport, tanks, industrial facilities, equipment in general, pipelines, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S235NL2, 14Ni6, 12Ni14, X12Ni5, S255N, S380N, S255NL, S380NL, S255NL1, S380NL1 ; A333: Gr. 1-3, A422: Gr.55-60, A334: Gr.3 ; 0Ni14, 13MnNi63, TTStE 355, TTStE 460, HY 80, TTStE 35 N*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M21, Argon + 1-5% O2

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	40-160	80-270	120-340
Voltage (V)	16-22	18-28	20-33

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
630	530	26	100	-60°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.08	0.50	1.10	<0.015	<0.015	<0.25	<0.15	2.50	<0.15	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100550	0.80	15	D300 PLW	72
6011100555	1.00	15	D300 PLW	72
6011100551	1.20	15	D300 PLW	72

ER 100S-G

Low Alloy **MIG/GMAW**

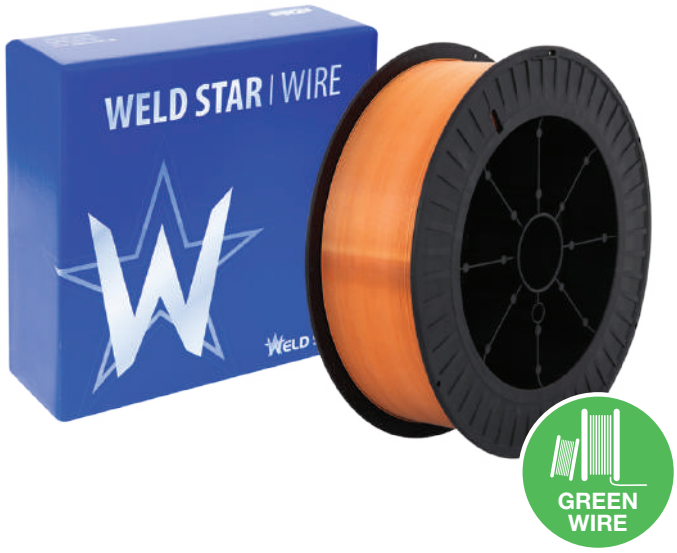
Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - G 55 5 M21 Mn3NiCrMo

AWS-Standard - A5.28
AWS-Classification - ER 100S-G

Features and Applications

- NiCrMo fine-grained steels for low temperature high strength applications.
- Extreme crack resistant alloy with high mechanical properties and excellent welding characteristics.
- High impact strength at sub-zero temperatures down to -50°C.
- Precision layer wound for superior wire feeding characteristics.
- Typically used in the industrial sectors of means of transport and ground movement, building industry, bridges, tanks, railway transport, mining industry, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

T1, T1A, T1B, StE 460, StE590, X60, X65, X70, X80, S460, S500, S550, S620, Weldox 500*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M20, M21, M33

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	90-160	150-250	220-320
Voltage (V)	18-22	22-28	26-32

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
730	640	20	50	-50°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti%	Zr%
0.08	0.75	1.40	<0.015	<0.015	<0.25	0.55	0.60	0.25	<0.020	<0.020	<0.050	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010203273	0.80	15	D300 PLW	72
3010203275	1.00	15	D300 PLW	72
3010203277	1.20	15	D300 PLW	72

ER 110S-G

Low Alloy **MIG/GMAW**

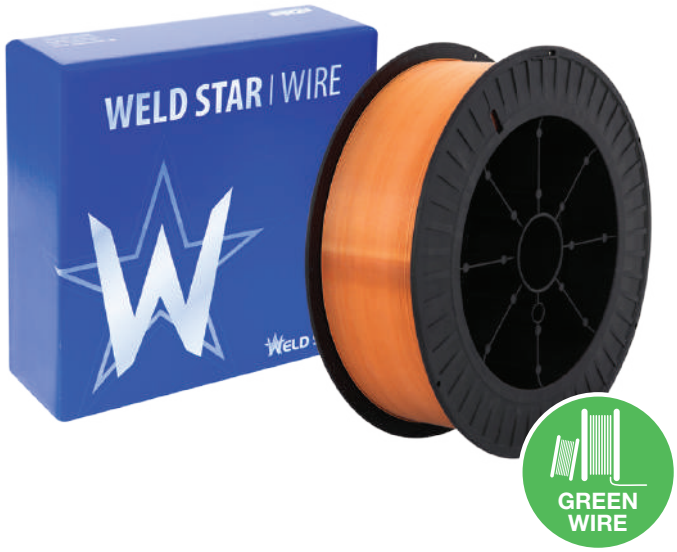
Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - G 69 4 M21 Mn3Ni1CrMo

AWS-Standard - A5.28
AWS-Classification - ER 110S-G

Features and Applications

- A copper coated wire containing NiCrMo for single pass or multipass welding of low alloy steels.
- Designed for welding high yield strength steels with a minimum tensile strength of 770 MPa.
- Excellent impact strength at low temperatures down to -40°C.
- Ideal for steels requiring tough weld metal for critical applications.
- Precision layer wound for superior wire feeding characteristics.
- Typically used in the metal working industry, offshore fabrication, chemical & petrochemical industries etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

T1, T1A, T1B, HY90, N-A-XTRA 56-63-65-70, X65, X70, X80, S460, S500, S550, S620, S690, WELDOX 700 etc.*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M20, M21, M33

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	90-160	150-250	220-320
Voltage (V)	18-22	22-28	26-32

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
800	750	19	70	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti %	Zr %
0.080	0.60	1.60	<0.015	<0.015	<0.25	0.30	1.50	0.30	<0.030	0.10	<0.050	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010203706	0.80	15	D300 PLW	72
3010203708	1.00	15	D300 PLW	72
3010203710	1.20	15	D300 PLW	72

ER 120S-G

Low Alloy **MIG/GMAW**

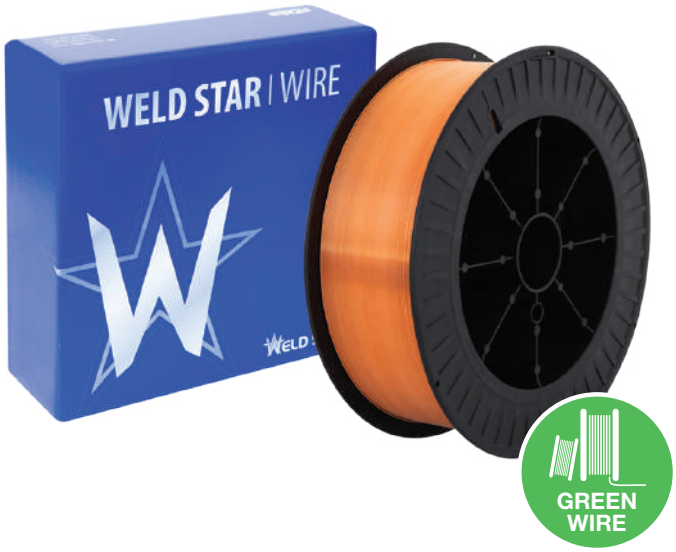
Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - G 89 4 M21 Mn4Ni2,5CrMo

AWS-Standard - A5.28
AWS-Classification - ER 120S-G

Features and Applications

- A copper coated wire containing NiCrMo for welding ultra-high tensile strength steels.
- Designed for fine grain steels exceeding 890 MPa yield strengths.
- High impact strength at low temperatures with exceptional plasticity of the weld deposit.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on lifting and handling machinery, bridges, tanks, transport, shipbuilding, railway, mines, cranes, frames, etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S890QL, S960Q ; P460NH, P460NL1 ; Weldox 900, Weldox 960, Strenx 960*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M20, M21, M33

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	90-160	150-250	220-320
Voltage (V)	18-22	22-28	26-32

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
1040	960	16	60	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti %	Zr %
0.110	0.70	1.90	<0.015	<0.015	<0.25	0.50	2.50	0.50	<0.010	<0.030	0.08	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6031100426	0.80	15	D300 PLW	72
6031100427	1.00	15	D300 PLW	72
6031100428	1.20	15	D300 PLW	72

ER 80S-G (Corten)

Low Alloy **MIG/GMAW**

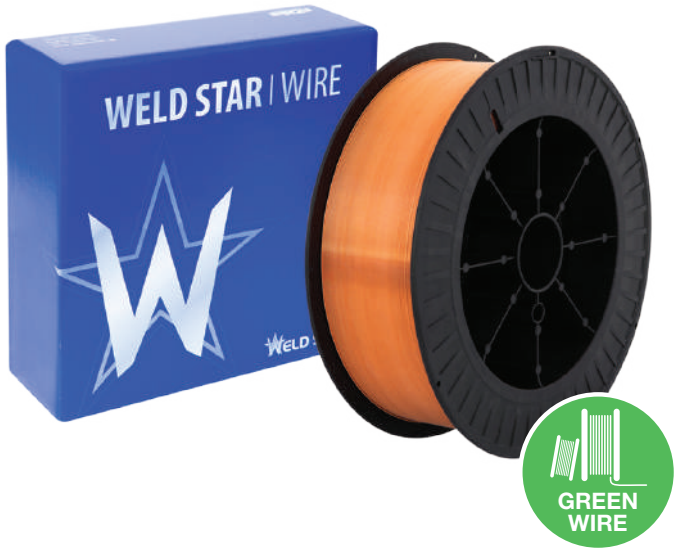
Standards

EN/ISO-Standard - 14341-A
EN/ISO-Classification - G 50 4 C1/M21 Z3Ni1

AWS-Standard - A5.28
AWS-Classification - ER 80S-G

Features and Applications

- Solid wire suitable for welding weather resistant structural steels like corten and other high strength low-alloy steels.
- Alloyed with copper and nickel which gives a high resistance against atmospheric corrosion.
- This wire provides a unique aesthetic appeal and can be identified by its typically reddish rust or patina look for structural and artistic applications.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on the construction of containers, tanks, bridges, building panels, chimneys, means of transport, offshore platforms etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S235JRW, S235J2G3 ; Patinax 37, Alcodur50, Koralpin 52, ; S355J2G3Cu, 9CrNiCuP3-2-4 ; Corten A - B1 ; TsT52.3, S355K2W*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - C1, M20, M21, M33

Polarity

MAG DC (+)

Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	80-160	150-250	220-320
Voltage (V)	18-22	22-28	26-32

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
630	550	22	60	-40ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr + Ti %
0.08	0.80	1.40	<0.020	<0.020	<0.40	0.25	0.80	<0.05	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100488	0.80	15	D300 PLW	72
6011100489	1.00	15	D300 PLW	72
6011100490	1.20	15	D300 PLW	72

WELD STAR | TIG/GTAW WIRES

ER 70S-3 (SG1)

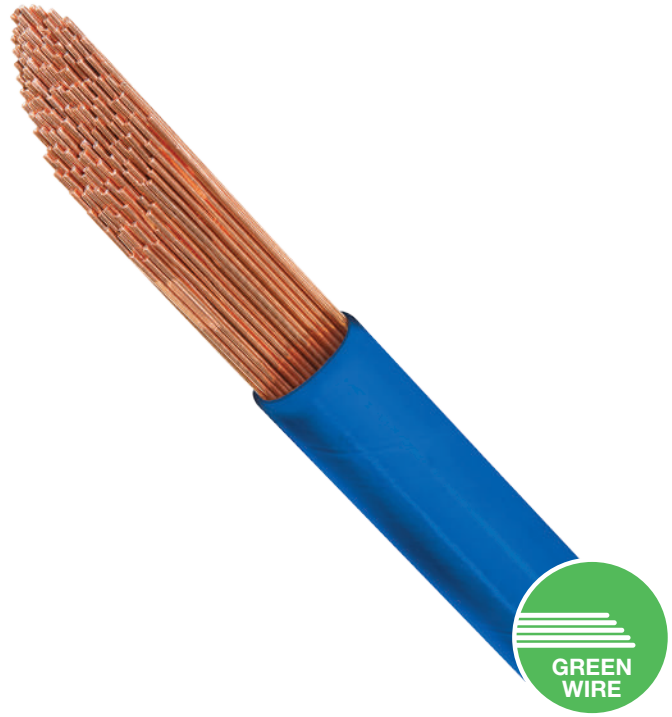
Mild Steel **TIG/GTAW**

Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 42 4 2Si
AWS-Standard - A5.18
AWS-Classification - ER 70S-3

Features and Applications

- A copper coated wire designed for welding carbon and carbon-manganese steels.
- Suitable for single pass or multipass welding.
- Ideal for joining thin sheet metals.
- Typically used in general construction works, shipbuilding, bridges, tanks, boilers, earthworks etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
530	430	24	>80	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti%
0.070	0.65	1.15	<0.020	<0.020	<0.25	<0.15	<0.15	<0.050	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300102	1.60	1000	5	Cardboard Tube
3010300104	2.40	1000	5	Cardboard Tube
3010300106	3.20	1000	5	Cardboard Tube

ER70S-2 (A15)

Mild Steel **TIG/GTAW**

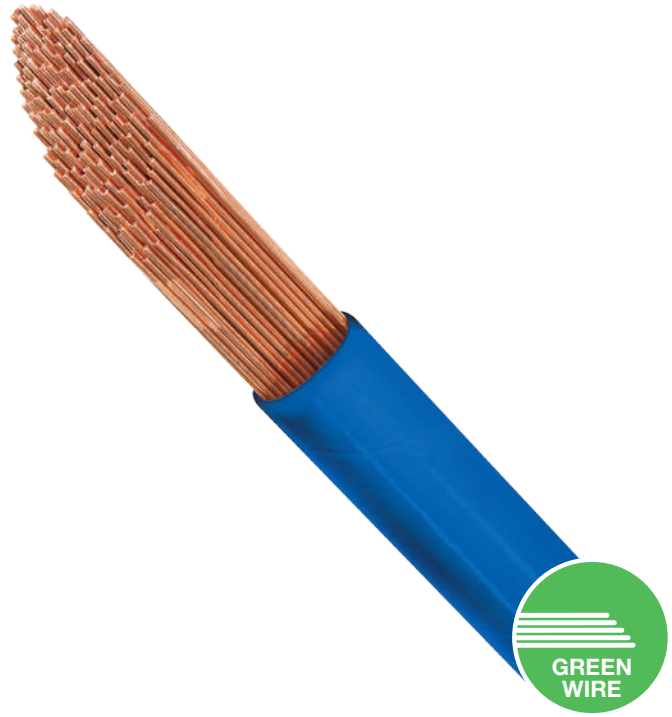
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 2Ti

AWS-Standard - A5.18
AWS-Classification - ER 70S-2

Features and Applications

- Micro-alloyed steel, triple de-oxidised (Ti, Al, Zr) suitable for the welding of C-Mn and low-alloy steels.
- Ideal for use on greasy and oxidised surfaces subsequent to any coating processes. (i.e. galvanised steel)
- Works well at low temperatures.
- Typically used on tanks, containers, car industry, structural work, household appliances, pipelines, boilers, naval & petrochemical sectors etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

A106, A210, A234 S355J2, S380N, P235GH, GS 45, P295GH, P355GH, S355N*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
560	480	24	>50	-30°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.06	0.60	1.20	<0.020	<0.020	<0.25	<0.10	<0.10	<0.050	0.100	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300219	1.00	1000	5	Cardboard Tube
3010300221	1.20	1000	5	Cardboard Tube
3010300222	1.60	1000	5	Cardboard Tube
3010300224	2.40	1000	5	Cardboard Tube
3010300225	3.20	1000	5	Cardboard Tube

ER 70S-6 (A18)

Mild Steel **TIG/GTAW**

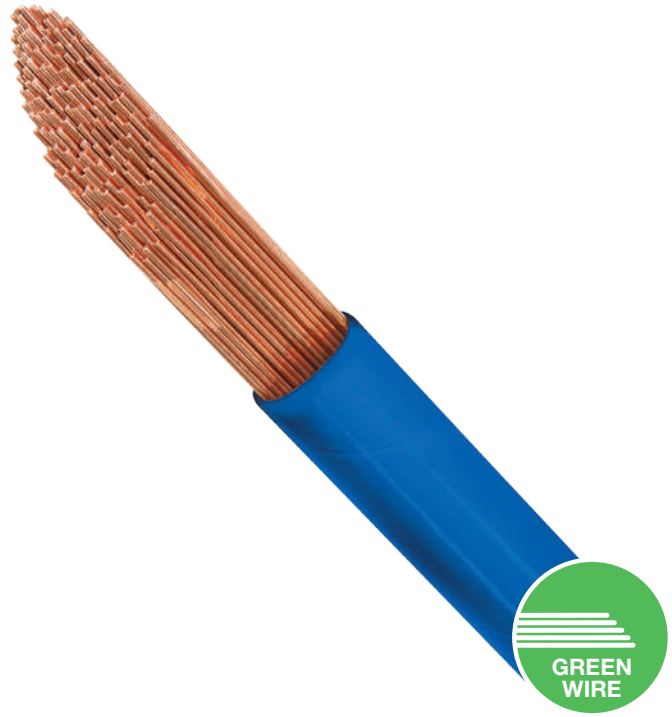
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 42 4 3Si1

AWS-Standard - A5.18
AWS-Classification - ER 70S-6

Features and Applications

- A copper coated wire containing high levels of manganese and silicon for stronger deoxidizing power where stringent cleaning procedures are not possible.
- The high silicon content increases the fluidity of the weld pool, creating a smoother bead appearance and resulting in minimal post-weld grinding.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML*

* Illustrative, not exhaustive list

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
550	450	>24	>80	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr + Ti %
0.07	0.85	1.45	<0.020	<0.020	<0.25	<0.15	<0.15	<0.050	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300154	1.00	1000	5	Cardboard Tube
3010300155	1.20	1000	5	Cardboard Tube
3010300156	1.60	1000	5	Cardboard Tube
3010300158	2.40	1000	5	Cardboard Tube
3010300159	3.20	1000	5	Cardboard Tube

ER 70S-A1 (A30)

Low Alloy **TIG/GTAW**

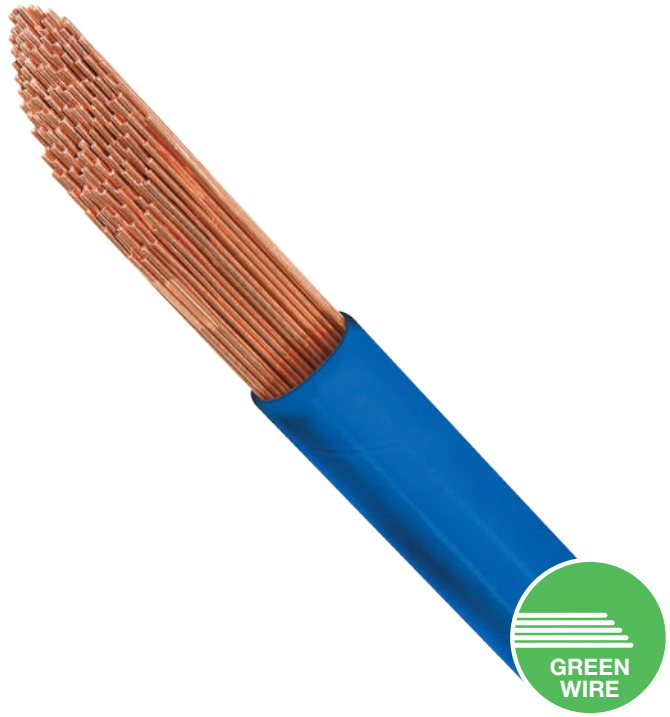
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 2Mo

AWS-Standard - A5.28
AWS-Classification - ER 70S-A1

Features and Applications

- A copper coated heat-resisting wire containing 0.5% molybdenum.
- Designed for welding low alloy creep resistant steels that require a high tensile strength.
- Weld deposit highly resistant to cold cracking.
- Recommended working temperatures of up to 500°C.
- Typically used on creep steels for construction steam boilers, pressure tanks, gas pipes, shipbuilding sector, petrochemical industry, heat exchangers, building of cranes, bridges etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

P295GH, P355GH, 16Mo3, 17Mo3, 14Mo6, S275, S355, S420, A210, A285, A335, A516, S275Ml, S355M, S420M, S460 15Mo3, 10MnMo45, 11MnMo45, GS60, GS22Mo4, 20MnMoNi5-5, 15NiCuMoNd5S, 17MnMoV64*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
610	520	25	150	+20ºC
			>47	-40ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti%
0.09	0.60	1.20	<0.015	<0.015	<0.25	<0.15	<0.10	0.50	<0.030	<0.020	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300421	1.60	1000	5	Cardboard Tube
3010300423	2.40	1000	5	Cardboard Tube
3010300424	3.20	1000	5	Cardboard Tube

ER 80S-D2 (A31)

Low Alloy **TIG/GTAW**

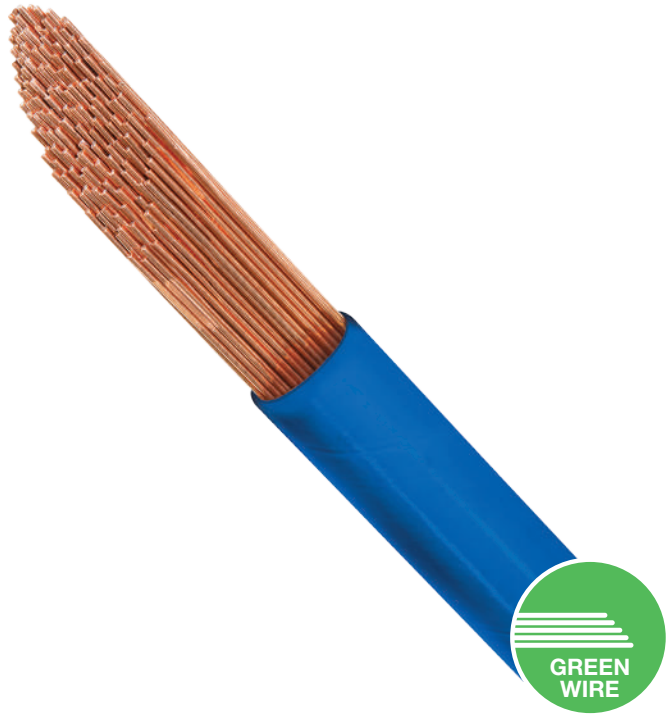
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W Z2Mo

AWS-Standard - A5.28
AWS-Classification - ER 80S-D2

Features and Applications

- A copper coated heat-resisting wire containing 0.5% molybdenum.
- Weld deposit yields excellent quality and bead appearance on carbon and low-alloy steels.
- Suitable for operating at high currents giving a stable arc with a low amount of spatter.
- Recommended working temperatures of up to 500°C.
- Typically used on creep steels for construction steam boilers, pressure tanks, gas pipes, shipbuilding sector, petrochemical industry, heat exchangers, building of cranes, bridges etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

P235G1TH, P255G1TH, P310GH, 16Mo3, A255, A350, A612, A210, A333, A316, A369, A106*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
670	550	24	70	-30°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.09	0.70	1.90	<0.015	<0.015	<0.25	<0.15	<0.10	0.50	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300279	1.00	1000	5	Cardboard Tube
3010300280	1.20	1000	5	Cardboard Tube
3010300281	1.60	1000	5	Cardboard Tube
3010300283	2.40	1000	5	Cardboard Tube
3010300284	3.20	1000	5	Cardboard Tube

ER 80S-B2 (A32)

Low Alloy **TIG/GTAW**

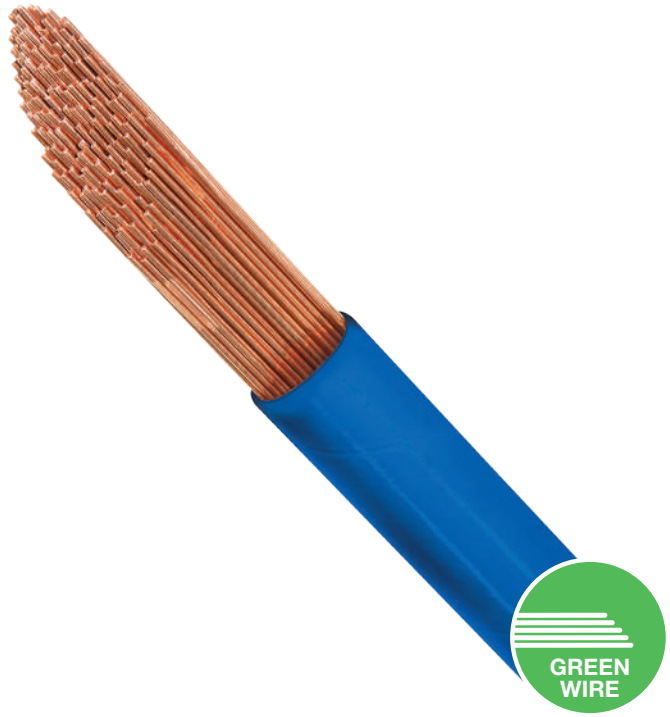
Standards

EN/ISO-Standard - 21952-B
EN/ISO-Classification - 1CM

AWS-Standard - A5.28
AWS-Classification - ER 80S-B2

Features and Applications

- Low alloy copper coated wire with 1.25% Cr and 1% Mo content used for the welding of heat-resistant steels.
- Suitable for welding 0.9% Cr and 0.5% Mo steels.
- Designed for high temperature power generation applications.
- Recommended working temperatures of up to 550°C.
- Typically used on equipment for the chemical and ammonia synthesis process, heat exchangers, boilers, pipes, pressure vessels, petrochemical industries etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

13CrMo4-5, G17CrMo55, A387:2,11,12, A200: T11, T12, GS 25CrMo4, GS 18CrMo910, 10CrMo910, 10CrSiMoV7, 10CrV63, 12CrSiMo8*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
620	510	24	100	-10°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Fx ppm
0.08	0.55	0.60	<0.012	<0.015	<0.25	1.30	<0.20	0.50	<0.020	<0.010	<15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300324	1.00	1000	5	Cardboard Tube
3010300325	1.20	1000	5	Cardboard Tube
3010300326	1.60	1000	5	Cardboard Tube
3010300328	2.40	1000	5	Cardboard Tube
3010300329	3.20	1000	5	Cardboard Tube

ER 90S-B3 (A33)

Low Alloy **TIG/GTAW**

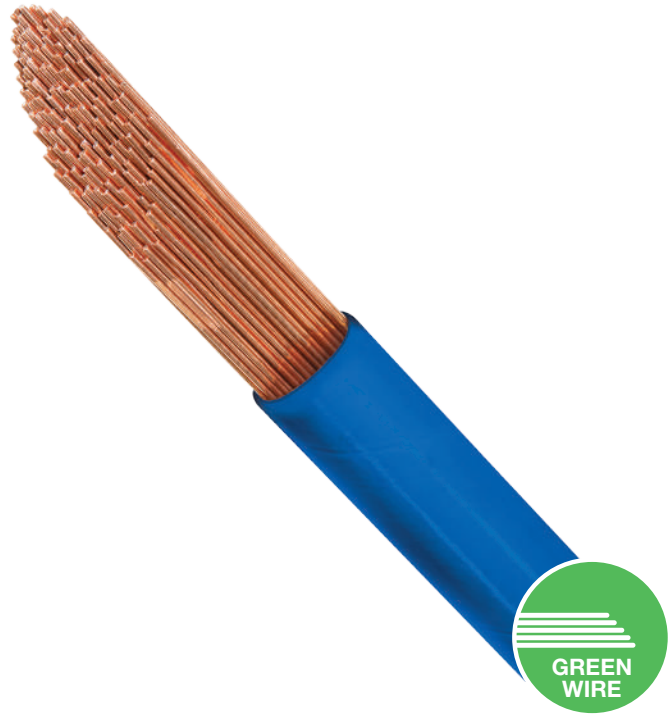
Standards

EN/ISO-Standard - 21952-B
EN/ISO-Classification - 2C1M

AWS-Standard - A5.28
AWS-Classification - ER 90S-B3

Features and Applications

- Low alloy copper coated wire with 2.25% Cr and 1% Mo content used for the welding of heat-resistant steels.
- Produces quality welds on pressure piping or boiler work.
- Designed to sustain elevated temperatures within demanding work environments.
- Recommended working temperatures of up to 600°C.
- Typical applications include pressure piping in steam power generating plants, boiler and heat exchanger tubes, chemical and petrochemical processing equipment etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

10CrMo9-10, GS 17CrMoV5 11, 10CrSiMoV7, 12CrSiMo8, GS12CrMo9 10, 10CrSiMoV7, 10Cr V63, 12CrSiMo8*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
640	540	22	90	-10°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Fx ppm
0.08	0.50	0.60	<0.012	<0.015	<0.25	2.40	<0.20	1.00	<0.020	<0.010	<15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300367	1.60	1000	5	Cardboard Tube
3010300369	2.40	1000	5	Cardboard Tube
3010300370	3.20	1000	5	Cardboard Tube

ER 80S-B6 (CrMo5)

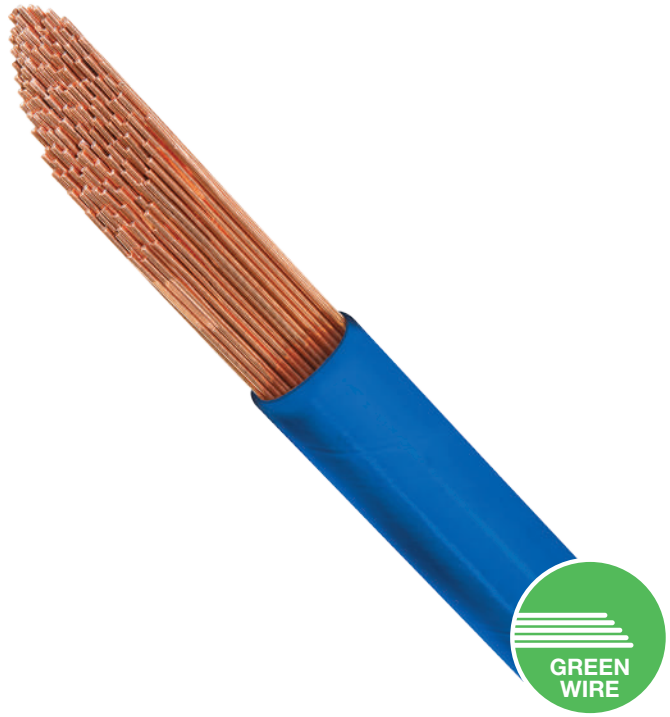
Low Alloy **TIG/GTAW**

Standards

EN/ISO-Standard - 21952-A
EN/ISO-Classification - W CrMo5Si
AWS-Standard - A5.28
AWS-Classification - ER 80S-B6

Features and Applications

- Low alloy copper coated wire with 5% Cr and 0.5% Mo content used for the welding of heat-resistant steels.
- High strength and corrosion resistant particularly in environments involving hot hydrogen gas.
- Recommended working temperatures of up to 650°C.
- Typical applications include pressure piping in steam power generating plants, boiler and heat exchanger tubes, oil refineries, chemical and petrochemical industries.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

X12CrMo5, GX12CrMo5, A213, A217:C5, A355:P5, GS 12CrMo19 5*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
660	560	22	180	+20ºC

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti %
0.07	0.45	0.60	<0.012	<0.015	<0.25	5.70	<0.20	0.60	<0.020	<0.030	<0.010

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300404	1.60	1000	5	Cardboard Tube
3010300406	2.40	1000	5	Cardboard Tube
3010300407	3.20	1000	5	Cardboard Tube

ER 80S-Ni1

Low Alloy **TIG/GTAW**

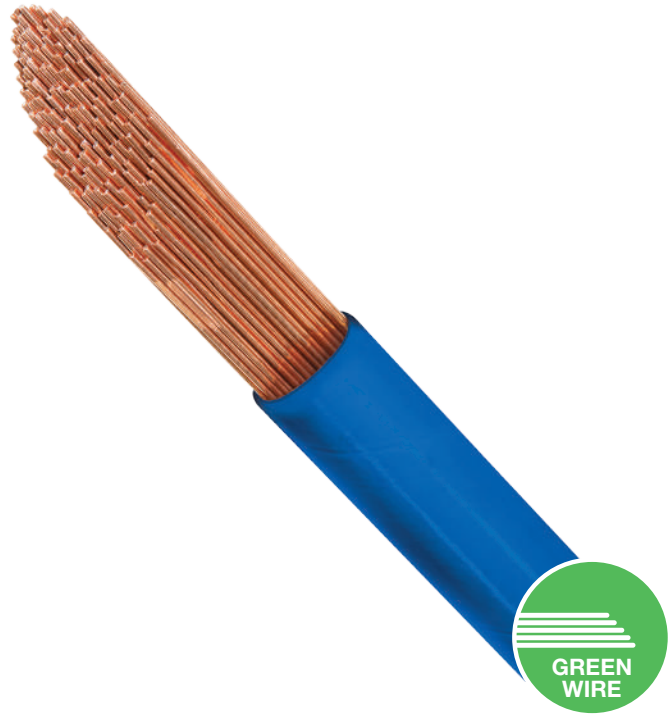
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 3Ni1

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni1

Features and Applications

- Copper coated, Ni-alloy (1,0% Ni), solid wire for low temperature, fine grained and austempering steels.
- Excellent impact toughness due to the addition of Nickel.
- Good mechanical properties at sub-zero temperatures down to -50°C.
- Especially suitable for use in the offshore industry.
- Typically used on the building up of cranes, transport, tanks, industrial facilities, equipment in general, pipelines, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

A106, A515, A714, A131, A369, A210, L290, P235 T1/T2, P275 T1 ; L360, L415 ; P275T2, P355N ; X-42, X46, X62, X60 ; P235GH, P355GH ; A283, A285, A414, A372, A662, S275, S420, A516, A255, A333, A350, A612*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
600	480	26	100	-50°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.09	0.70	1.20	<0.015	<0.015	<0.25	<0.15	1.00	<0.15	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100522	1.60	1000	5	Cardboard Tube
6011100380	2.40	1000	5	Cardboard Tube
6011100521	3.20	1000	5	Cardboard Tube

ER 80S-Ni2

Low Alloy **TIG/GTAW**

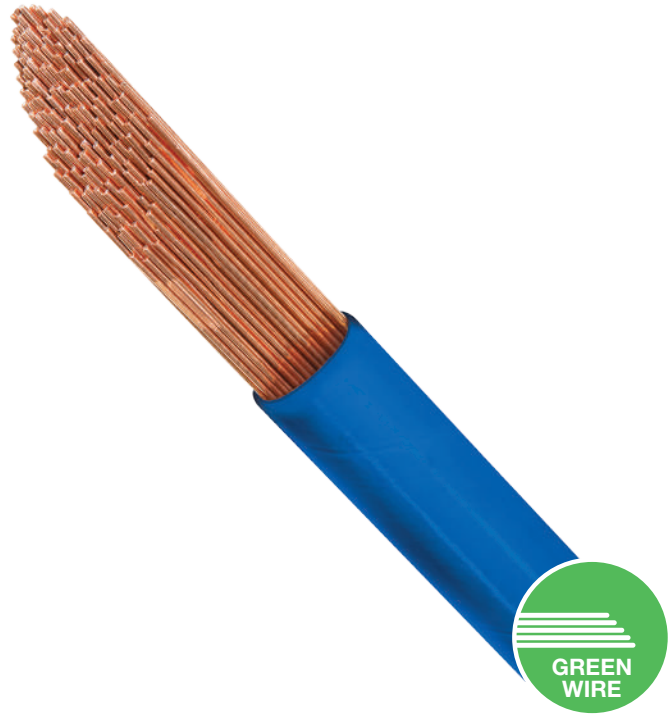
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W 2Ni2

AWS-Standard - A5.28
AWS-Classification - ER 80S-Ni2

Features and Applications

- Copper coated, Ni-alloy (2,5% Ni), solid wire for low temperature, fine grained and austempering steels.
- Excellent impact toughness due to the addition of Nickel.
- Good mechanical properties at sub-zero temperatures down to -60°C.
- Especially suitable for use in the offshore industry.
- Typically used on the building up of cranes, transport, tanks, industrial facilities, equipment in general, pipelines, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S235NL2, 14Ni6, 12Ni14, X12Ni5, S255N, S380N, S255NL, S380NL, S255NL1, S380NL1 ; A333: Gr. 1-3, A422: Gr.55-60, A334: Gr.3 ; 0Ni14, 13MnNi63, TTStE 355, TTStE 460, HY 80, TTStE 35 N*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
630	530	26	100	-60°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.08	0.50	1.10	<0.015	<0.015	<0.25	<0.15	2.50	<0.15	<0.020	<0.030	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100552	1.60	1000	5	Cardboard Tube
6011100553	2.40	1000	5	Cardboard Tube
6011100554	3.20	1000	5	Cardboard Tube

ER 100S-G

Low Alloy **TIG/GTAW**

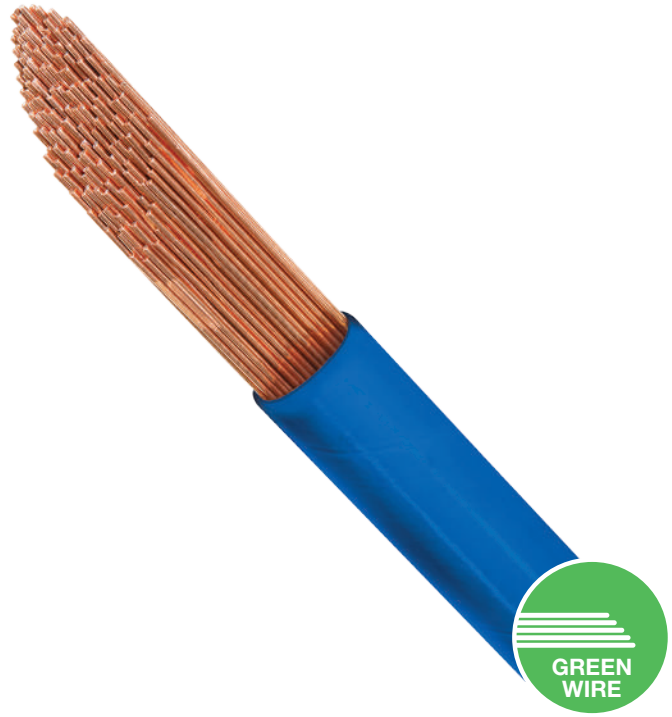
Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - Mn3NiCrMo

AWS-Standard - A5.28
AWS-Classification - ER 100S-G

Features and Applications

- NiCrMo fine-grained steels for low temperature high strength applications.
- Extreme crack resistant alloy with high mechanical properties and excellent welding characteristics.
- High impact strength at sub-zero temperatures down to -50°C.
- Typically used in the industrial sectors of means of transport and ground movement, building industry, bridges, tanks, railway transport, mining industry, shipbuilding etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

T1, T1A, T1B, StE 460, StE590, X60, X65, X70, X80, S460, S500, S550, S620, Weldox 500 etc.*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
730	640	20	50	-50°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti%	Zr%
0.08	0.75	1.40	<0.015	<0.015	<0.25	0.55	0.60	0.25	<0.020	<0.020	<0.050	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300450	1.60	1000	5	Cardboard Tube
3010300452	2.40	1000	5	Cardboard Tube
3010300453	3.20	1000	5	Cardboard Tube

ER 110S-G

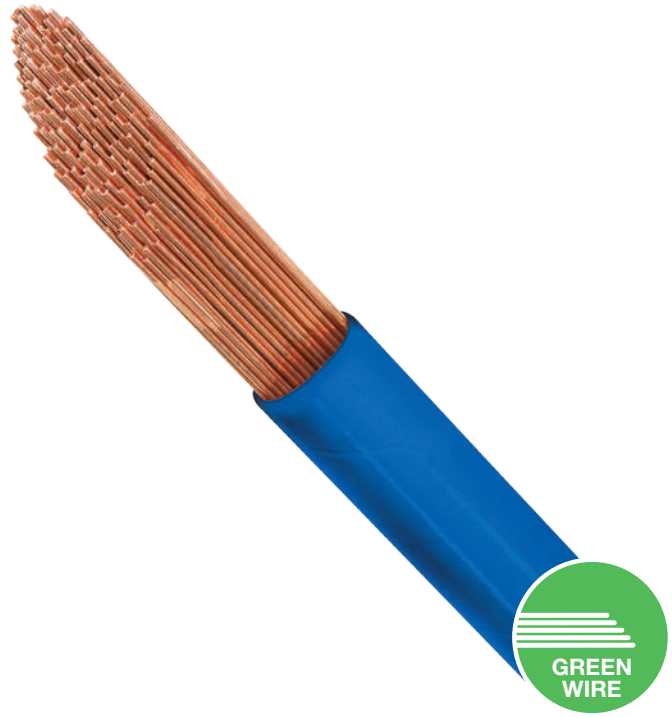
Low Alloy **TIG/GTAW**

Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - Mn3Ni1CrMo
AWS-Standard - A5.28
AWS-Classification - ER 110S-G

Features and Applications

- A copper coated wire containing NiCrMo for single pass or multipass welding of low alloy steels.
- Designed for welding high yield strength steels with a minimum tensile strength of 770 MPa.
- Excellent impact strength at low temperatures down to -40°C.
- Ideal for steels requiring tough weld metal for critical applications.
- Typically used in the metal working industry, offshore fabrication, chemical & petrochemical industries etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

T1, T1A, T1B, HY90, N-A-XTRA 56-63-65-70, X65, X70, X80, S460, S500, S550, S620, S690, WELDOX 700 etc.

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
800	750	19	70	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti %	Zr %
0.080	0.60	1.60	<0.015	<0.015	<0.25	0.30	1.50	0.30	<0.030	0.10	<0.050	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
3010300470	1.60	1000	5	Cardboard Tube
3010300472	2.40	1000	5	Cardboard Tube
3010300473	3.20	1000	5	Cardboard Tube

ER 120S-G

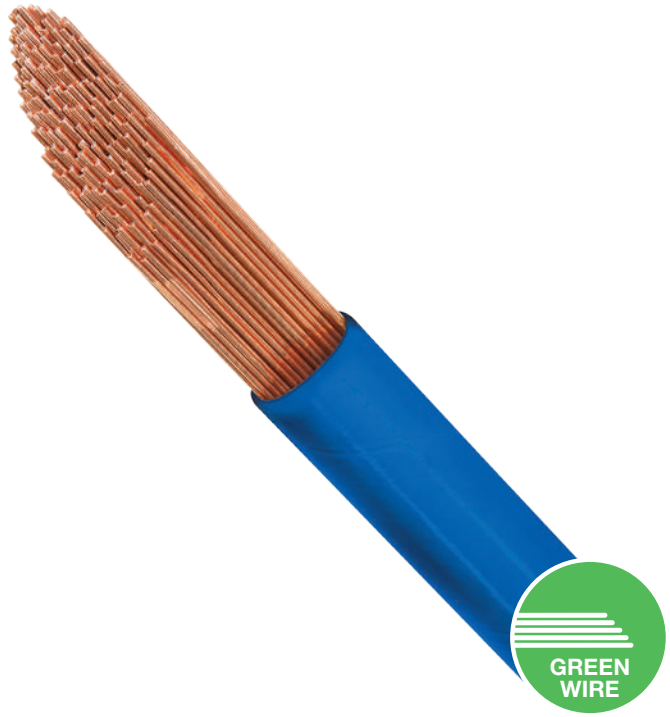
Low Alloy **TIG/GTAW**

Standards

EN/ISO-Standard - 16834-A
EN/ISO-Classification - Mn4Ni2,5CrMo
AWS-Standard - A5.28
AWS-Classification - ER 120S-G

Features and Applications

- A copper coated wire containing NiCrMo for welding ultra-high tensile strength steels.
- Designed for fine grain steels exceeding 890 MPa yield strengths.
- High impact strength at low temperatures with exceptional plasticity of the weld deposit.
- Typically used on lifting and handling machinery, bridges, tanks, transport, shipbuilding, railway, mines, cranes, frames, etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S890QL, S960Q ; P460NH, P460NL1 ; Weldox 900, Weldox 960, Strenx 960*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
1040	960	16	60	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Ti %	Zr %
0.110	0.70	1.90	<0.015	<0.015	<0.25	0.50	2.50	0.50	<0.010	<0.030	0.08	<0.050

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6031100490	1.60	1000	5	Cardboard Tube
6031100491	2.40	1000	5	Cardboard Tube
6031100492	3.20	1000	5	Cardboard Tube

ER 80S-G (Corten)

Low Alloy **TIG/GTAW**

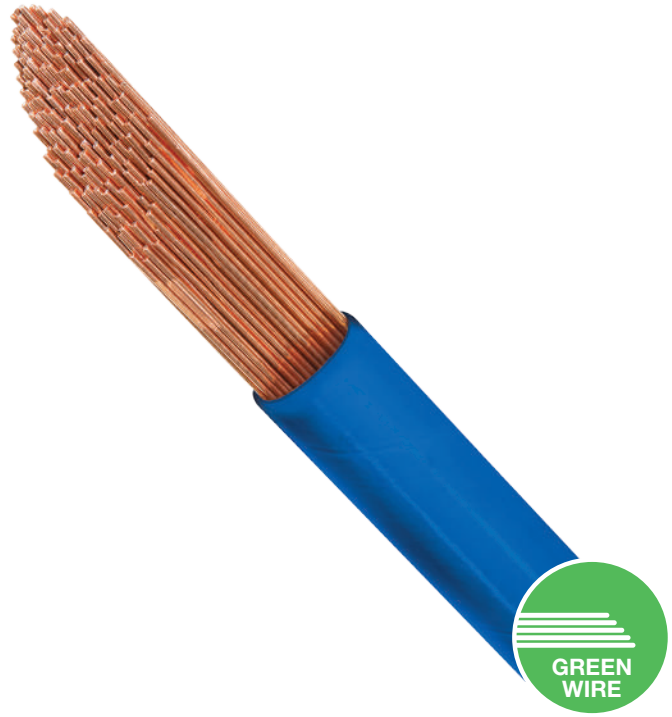
Standards

EN/ISO-Standard - 636-A
EN/ISO-Classification - W Z3Ni1

AWS-Standard - A5.28
AWS-Classification - ER 80S-G

Features and Applications

- Solid wire suitable for welding weather resistant structural steels like corten and other high strength low-alloy steels.
- Alloyed with copper and nickel which gives a high resistance against atmospheric corrosion.
- This wire provides a unique aesthetic appeal and can be identified by its typically reddish rust or patina look for structural and artistic applications.
- Typically used on the construction of containers, tanks, bridges, building panels, chimneys, means of transport, offshore platforms etc.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



Typical Base Materials

S235JRW, S235J2G3 ; Patinax 37, Alcodur50, Koralpin 52, ; S355J2G3Cu, 9CrNiCuP3-2-4 ; Corten A - B1 ; TsT52.3, S355K2W*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF

Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

Polarity

TIG DC (-)

Mechanical Properties (Typical)

Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Impact Strength (J)	Test Temperature
630	550	22	60	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu %[a]	Cr %	Ni %	Mo %	Al %	V %	Zr + Ti %
0.08	0.80	1.40	<0.020	<0.020	<0.40	0.25	0.80	<0.05	<0.020	<0.030	<0.15

[a] (includes copper coating)

Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
6011100578	1.60	1000	5	Cardboard Tube
6011100579	2.40	1000	5	Cardboard Tube
6011100580	3.20	1000	5	Cardboard Tube

NOTES

NOTES

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