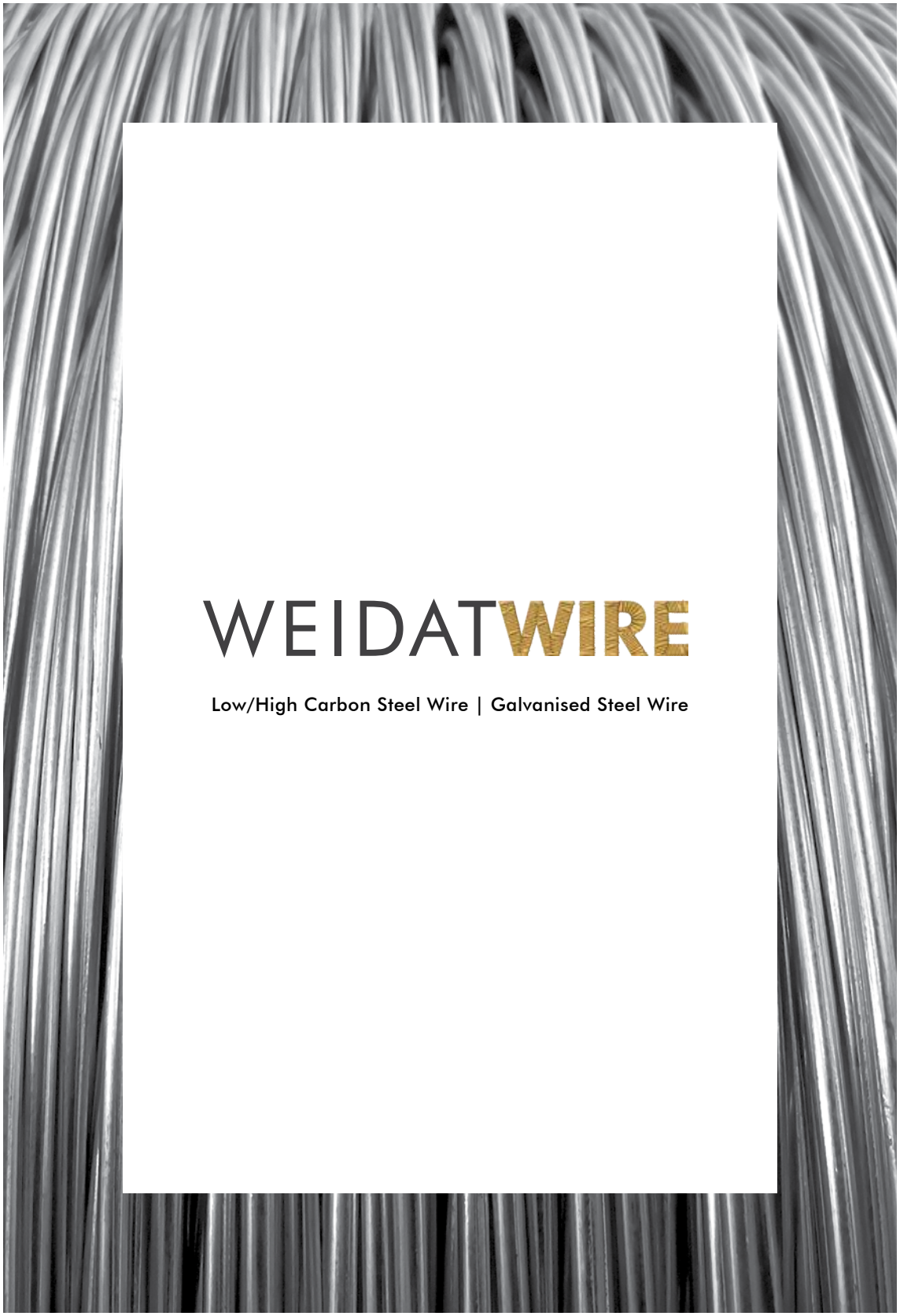


WEIDATWIRE

Low/High Carbon Steel Wire | Galvanised Steel Wire

EXPERIENCED WORKFORCE WITH TECHNICAL KNOW-HOW

100% QUALITY INSPECTION

UNINTERRUPTED SUPPLY CHAIN

CONSISTENT & RELIABLE CUSTOMER SERVICE

Innovated for a Superior Standard

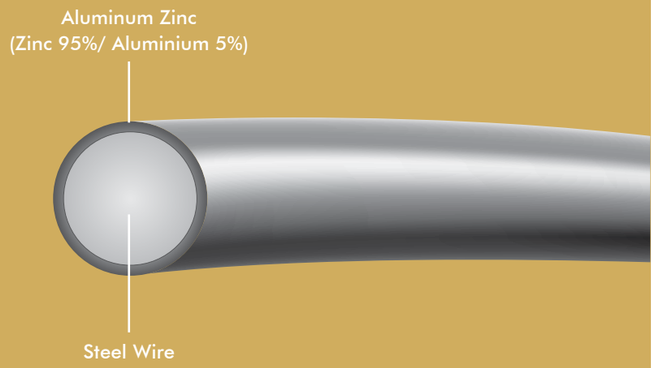
At WEIDAT, you will find that both our Low/High Carbon Steel Wire and Galvanised Steel Wire meet the timeless British Standard.

Introducing INNOGAL™, a coated steel wire double-dipped and coated with a layer of zinc aluminum, boasting maximum protection even in the most corrosive of environments. This proud WEIDAT innovation is yet another testament to our many years of excellence.

WWW.WEIDAT.COM

innogal

ZINC ALLOY COATINGS



WHAT IS INNOGAL™ ?

- **INNO**vative **GAL**vanizing – wide range of value-added wire byproducts
- Alloy of Zinc-Aluminum at 95% Zn and 5% Al
- Presence of aluminum in the INNOGAL™ coating leads to an adherent aluminum oxide layer formed on the surface
- This protective aluminum oxide layer slow down the active reaction of the zinc in the alloy and increases the life of INNOGAL™ considerably
- Additional corrosion protection by the Fe/Zn/Al layer (formed on the steel when aluminum diffuses into steel) after Zn/Al is fully corroded

THE SPECIFICATIONS

BS EN 10244 - 2 : 2009
Steel wire and wire products
Non-ferrous metallic coatings on steel wire

DOUBLE DIPPING PROCESS

- Properly annealed, cleaned and fluxed steel acquires a galvanized coating in the first bath
- Transforms into aluminum-iron-zinc in second molten INNOGAL™ bath to achieve coating compsed of 95% zinc and 5% aluminum eutectic alloy

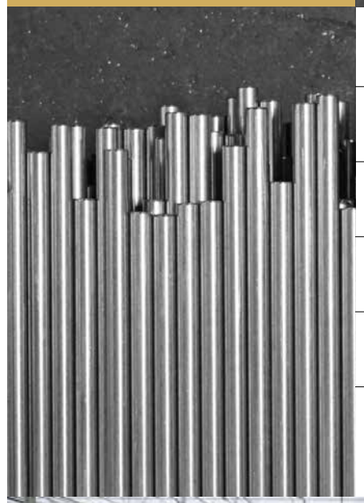
ADVANTAGES OF THE PROCESS

- Corrosion resistance up to FOUR times that of galvanized wire
- Can be extensively redrawn and subjected to severe wire forming operations (Superior ductility)
- A cost effective alternative to higher prices anti-corrosion materials and coating
- Environmental friendly
- 14 dedicated INNOGAL™ lines to meet volume demands and fluctuating requirements

LOW/HIGH CARBON STEEL WIRE | GALVANISED STEEL WIRE

PRODUCT USAGE

Low/High Carbon Steel Wire
Galvanised Steel Wire



- Welded Mesh Fabric
- Chain-link Fence Fabric
- Gabions
- Poultry Industry
- Agriculture Industry
- Power Cable Industry (Armoring Cable)

SPECIFICATIONS

BS EN 10244–2

INNOGAL WIRE & HEAVY GALVANIZED WIRE

Diameter	Coating Mass
0.15mm-0.20mm	–
0.20mm-0.25mm	30
0.25mm-0.32mm	45
0.32mm-0.40mm	60
0.40mm-0.50mm	85
0.50mm-0.60mm	100
0.60mm-0.70mm	115
0.70mm-0.80mm	130
0.80mm-0.90mm	145
0.90mm-1.00mm	155
1.00mm-1.20mm	165
1.20mm-1.40mm	180
1.40mm-1.65mm	195
1.65mm-1.85mm	205
1.85mm-2.15mm	215
2.15mm-2.50mm	230
2.50mm-2.80mm	245
2.80mm-3.20mm	255
3.20mm-3.80mm	265
3.80mm-4.40mm	275
4.40mm-5.20mm	280
5.20mm-8.20mm	290
8.20mm-10.00mm	300

BS EN 10218–2

WIRE DIMENSIONS & TOLERANCES

Nominal Diameter	Tolerance (mm)
0.30mm-0.52mm	±0.025mm
0.52mm-0.74mm	±0.030mm
0.74mm-1.01mm	±0.035mm
1.01mm-1.31mm	±0.040mm
1.31mm-1.66mm	±0.045mm
1.66mm-2.05mm	±0.050mm
2.05mm-2.94mm	±0.060mm
2.94mm-4.01mm	±0.070mm
4.01mm-5.23mm	±0.080mm
5.23mm-6.62mm	±0.090mm
6.62mm-8.17mm	±0.10mm
8.17mm-11.76mm	±0.12mm

GALVANISED WIRE PACKING

Inner Diameter (400mm)	Outer Diameter (800mm)	Weight (KG)	Inner Diameter (500mm)	Outer Diameter (1000mm)	Weight (KG)
1.2mm - 2.5mm		Prefer >500	Below 2.7mm		Max >800
1.6mm - 5.6mm		Max >700	2.8mm - 8.0mm		Max >1000

LOW/HIGH CARBON STEEL WIRE | GALVANISED STEEL WIRE

SPECIFICATIONS

BS EN 10244–2

STANDARD GALVANIZED WIRE

Diameter	Coating Mass
0.15mm-0.20mm	10
0.20mm-0.50mm	15
0.50mm-0.90mm	20
0.90mm-1.40mm	25
1.40mm-1.85mm	30
1.85mm-2.15mm	40
2.15mm-2.80mm	45
2.80mm-3.20mm	50
3.20mm-4.40mm	60
4.40mm-5.20mm	70
5.20mm-10.00mm	80

BS EN 10244–2

INNOGAL/ MID COATED WIRE

Diameter	Coating Mass
0.20mm-0.25mm	20
0.25mm-0.40mm	30
0.40mm-0.50mm	40
0.50mm-0.60mm	50
0.40mm-0.50mm	50
0.60mm-0.80mm	60
0.80mm-1.00mm	70
1.00mm-1.20mm	80
1.20mm-1.40mm	90
1.40mm-1.85mm	100
1.85mm-2.15mm	115
2.15mm-2.80mm	125
2.80mm-4.40mm	135
4.40mm-5.20mm	150
5.20mm-10.00mm	–

INNOGAL™ DIPPING TEST

Diameter (mm)	Full Coat (Number of Dips)	Diameter (mm)	Mid Coat (Number of Dips)
0.40mm-0.06mm	30 second	0.40mm-0.06mm	–
0.60mm-0.09mm	1 Minute x 1 Time	0.60mm-0.09mm	30 seconds
0.90mm-1.00mm	1 Min x 1 Time, 30 sec x 1 time	0.90mm-1.00mm	30 seconds
1.00mm-1.40mm	1 Min x 1 Time, 30 sec x 1 time	1.00mm-1.40mm	1 Minute x 1 Time
1.40mm-1.65mm	1 Minute x 2 Times	1.40mm-1.65mm	1 Minute x 1 Time
1.65mm-1.85mm	1 Minute x 2 Times	1.65mm-1.85mm	1 Minute x 1 Time
1.85mm-2.15mm	1 Minute x 2 Times	1.85mm-2.15mm	1 Min x 1 Time, 30 sec x 1 time
2.15mm-2.80mm	1 Min x 2 Times, 30 sec x 1 time	2.15mm-2.80mm	1 Min x 1 Time, 30 sec x 1 time
2.80mm-4.40mm	1 Minute x 3 Times	2.80mm-4.40mm	1 Minute x 2 Times
4.40mm-5.20mm	1 Min x 3 Times, 30 sec x 1 time	4.40mm-5.20mm	1 Minute x 2 Times
5.20mm-8.20mm	1 Min x 3 Times, 30 sec x 1 time	5.20mm-8.20mm	–
8.20mm-10.00mm	1 Minute x 4 Times	8.20mm-10.00mm	–

SPECIFICATIONS

JIS G 3521

HARD DRAWN STEEL WIRE (HIGH CARBON)

Nominal Diameter (mm)	Tolerance (mm)	Tensile (N/mm²)		
		SW-A	SW-B	SW-C
1.20	±0.030	1420 - 1670	1670 - 1910	1910 - 2160
1.40	±0.030	1370 - 1620	1620 - 1860	1860 - 2110
1.60	±0.030	1320 - 1570	1570 - 1810	1810 - 2060
1.80	±0.030	1280 - 1520	1520 - 1770	1770 - 2010
2.00	±0.040	1280 - 1470	1470 - 1720	1720 - 1960
2.30	±0.040	1230 - 1420	1420 - 1670	1670 - 1910
2.60	±0.040	1230 - 1420	1420 - 1670	1670 - 1910
2.90	±0.040	1180 - 1370	1370 - 1620	1620 - 1860
3.20	±0.040	1180 - 1370	1370 - 1570	1570 - 1810
3.50	±0.050	1180 - 1370	1370 - 1570	1570 - 1770
4.00	±0.050	1180 - 1370	1370 - 1570	1570 - 1770
4.50	±0.050	1130 - 1320	1320 - 1520	1520 - 1720
5.00	±0.050	1130 - 1320	1320 - 1520	1520 - 1720
5.50	±0.060	1080 - 1280	1280 - 1470	1470 - 1670
6.00	±0.060	1030 - 1230	1230 - 1420	1420 - 1620
6.50	±0.060	1030 - 1230	1230 - 1420	1420 - 1620
7.00	±0.060	980 - 1180	1180 - 1370	1370 - 1570
8.00	±0.060	980 - 1180	1180 - 1370	1370 - 1570

Application: Mainly for springs.

BS 4637

CARBON STEEL WIRE FOR COILED SPRINGS - BEDDING AND SEATING

Nominal Diameter (mm)	Tolerance (mm)	Tensile (N/mm²)	
		N/mm²	Kgf/mm²
1.20	±0.020	1400 - 2200	143 - 225
1.40	±0.020	1400 - 2100	143 - 215
1.60	±0.020	1300 - 2000	133 - 204
1.80	±0.020	1300 - 2000	133 - 204
2.00	±0.030	1300 - 2000	133 - 204
2.20	±0.030	1300 - 1900	133 - 194
2.40	±0.030	1300 - 1900	133 - 194
2.50	±0.030	1300 - 1900	133 - 194
2.60	±0.030	1300 - 1900	133 - 194
2.80	±0.030	1200 - 1900	133 - 194
3.20	±0.030	1200 - 1800	133 - 184
3.40	±0.030	1200 - 1800	133 - 184
3.50	±0.030	1200 - 1800	133 - 184
4.00	±0.030	1200 - 1800	133 - 184
4.50	±0.040	1100 - 1700	112 - 173
4.00**	±0.050	1600 - 2000	163- 204
5.00**	±0.050	1600 - 2000	163 - 204

Application: Bonnel Spring, Pocketed Spring, Conical Spring, Special Continuous Spring, Stabilizer Spring. ** Application: Mattress border frame

Surface Treatment
· Phosphate and borax coated
· With or without anti-rust oil

SPECIFICATIONS

JIS G 3532

HARD DRAWN STEEL WIRE (LOW CARBON)

Nominal Diameter (mm)	Tolerance (mm)	Tensile (N/mm²)	
		SWM-B	SWM-N
Below 1.80	±	–	–
1.80	±0.030	590 - 1270	740 - 1270
2.00	±0.030	590 - 1270	740 - 1270
2.30	±0.040	590 - 1270	740 - 1270
2.60	±0.040	540 - 1130	690 - 1130
2.90	±0.040	540 - 1130	690 - 1130
3.20	±0.040	540 - 1130	690 - 1130
3.50	±0.050	440 - 1030	590 - 1030
4.00	±0.050	440 - 1030	590 - 1030
4.50	±0.050	440 - 1030	540 - 930
5.00	±0.050	390 - 930	540 - 930
5.50	±0.050	390 - 930	540 - 930
6.00	±0.050	390 - 930	490 - 880
6.50	±0.060	390 - 930	490 - 880
7.00	±0.060	390 - 930	490 - 880
7.50	±0.060	390 - 930	–
8.00	±0.060	320 - 880	–

Export Packing	Domestic Packing
– 500-1000KGS per coil with 4 steel straps	– 500-1000KGS per coil with 4 steel straps
– Multi layer of Stretch film/PE Plastic wrapping	– Multi layer of Stretch film/PE Plastic wrapping
	** Below 300KGS per coil with wire tight
	** With or without wire stem (T&C)

SPECIFICATIONS

MS 144

ROUND BAR (PLAIN) - GRADE 250

	Carbon (Max)	Sulphur (Max)	Phosphorus (Max)	Nitrogen (Max)	Copper (Max)	Carbon Equivalent (Max)
Cast Analysis	0.22	0.05	0.05	0.012	0.8	0.42
Product Analysis	0.24	0.055	0.055	0.14	0.85	0.44

Nominal Diameter	Nominal Diameter		Yield Strength	Ratio	AGT (%)	Bending
≤12mm	6 %, ≤8mm	4.5%, ≥8mm	250	1.15	5.00	2d

Rib Height		Rib Spacing		Rib Inclination		SPRA	
Min	Max	Min	Max	Min	Max	≤6mm	0.035
0.03d	0.15d	0.4d	0.12d	35°	75°	≤12mm	0.04

AS/NZS 4671

RIBBED WIRE - GRADE 500L

	Carbon (Max)	Sulphur (Max)	Phosphorus t(Max)	Carbon Equivalent (Max)
Cast Analysis	0.22	0.05	0.05	0.39
Product Analysis	0.24	0.055	0.055	0.41

Nominal Diameter	Diameter Tolerance	Yield Strength (Mpa)	Ratio	AGT (%)	Bending
4.75mm -10.65mm	± 4.50%	500-750	1.03	1.50	3d

Rib Height		Rib Spacing		Rib Inclination		SPRA	
Min	Max	Min	Max	min	max	Diameter	%
0.05d	0.10d	0.50d	1.00d	35°	75°	4mm-5mm	0.036
						5mm-6mm	0.039
						6mm-8mm	0.045
						8mm-10mm	0.052
						10mm-40mm	0.056

*** Formular for SPRA 72%

Certifications & Achievements

ISO 9001 CERTIFIED
British Assessment Bureau

MS
SIRIM

CIDB MALAYSIA

WEI DAT STEEL WIRE SDN BHD (82971-D)
1, Persiaran Perusahaan Kledang Utara 1/5
Kawasan Perindustrian Chandan Raya
Menglembu, 31450 Ipoh, Perak, Malaysia
T +605 282 9220 | **F** +605 282 1220 | **E** sales@weidat.com
www.weidat.com