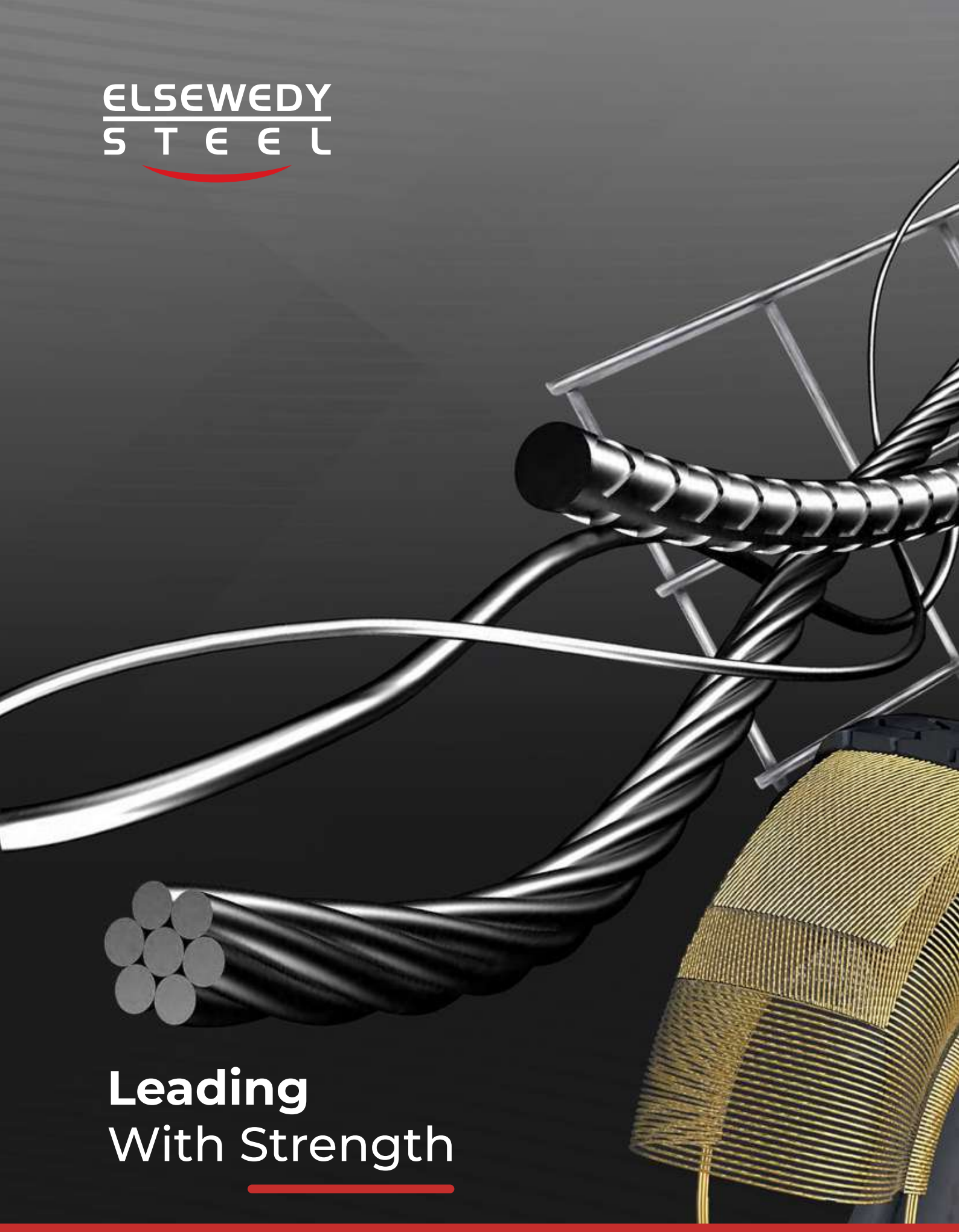
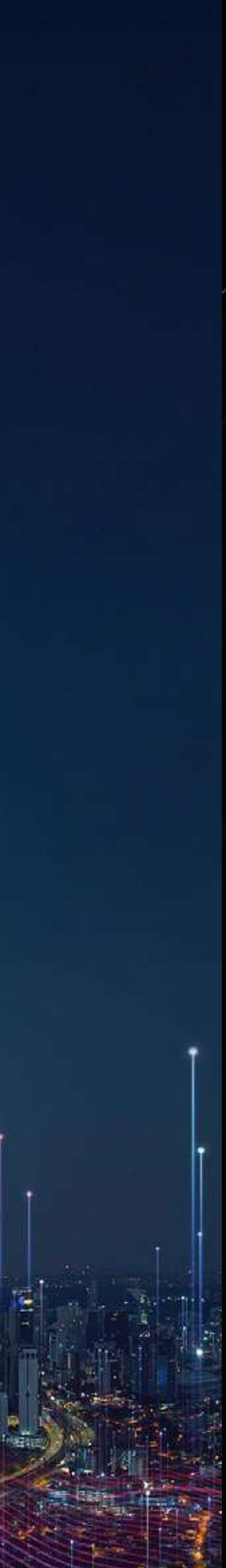
ELSEWEDY STEEL



Leading
With Strength

www.elsewedy-steel.com



ABOUT ELSEWEDY ELECTRIC

Elsewedy Electric, a global leader that has evolved from a local manufacturer of electrical products into an integrated infrastructure solutions provider; with over 19,000 employees and with recorded revenues of more than USD 5 Billion in 2023. We Operate in five key business sectors: Wire, Cable & Accessories, Electrical Products, Engineering & Construction, Digital Solutions, and Infrastructure Investments.

With a strong presence in 19 different countries, 31 production facilities spread across African and Asian countries including Egypt, Algeria, KSA, Qatar, Indonesia, Pakistan, and Tanzania. We export a wide range of high- end products to over 110 countries worldwide. At the heart of our approach is an all-in-one integrated Engineering, Procurement & Construction (EPC) service, enabling us to deliver the most complex turnkey projects on time and with the highest efficiency.

WE OPERATE IN FIVE KEY BUSINESS SECTORS

- WIRE, CABLE & ACCESSORIES
- ELECTRICAL PRODUCTS
- ENGINEERING & CONSTRUCTION
- DIGITAL SOLUTIONS
- INFRASTRUCTURE INVESTMENTS

- Wire, Cable, & Accessories
- Electrical Products
- Meters
- Transformers
- Telecommunication
- Renewable Energy
- Project Development
- Export

85+
Years Of Evolution

19K
Employees

34
Production Facilities

48
International Offices

19
Operation Countries

20%
Engineers

5.13B
Revenue in USD

110
Export Countries

ELSEWEDY STEEL

ABOUT US

Founded in 2006, **Elsewedy Steel**, a subsidiary of Elsewedy Electric, is a leading manufacturer in the steel downstream and wire drawing industry. We deliver specialized, high-performance reinforcement solutions to global markets across construction, infrastructure, automotive, energy, and heavy industry.

Our product portfolio is structured around three core segments: Concrete Reinforcement, Tire Reinforcement, and Drawn Wires. We export to over 25 countries and maintain a strong regional presence across the Middle East and Africa.

With two state-of-the-art production facilities spanning over 100,000 m^2 and an annual capacity of 300,000 metric tons, we offer consistent, scalable supply to both local and international markets. Our operations are powered by semi-automated systems, a skilled team of 350+ professionals, and a fully equipped ISO 17025-certified laboratory, ensuring precision, quality, and compliance at every stage.

30 +
Global Export Markets

100,000 SQM
Production area

300,000 TONS
Annual Production Capacity

CONCRETE REINFORCEMENT

PC STRAND

Product Overview

Engineered for structural integrity and built to endure, Elsewedy Steel prestressed concrete strands are 7-wire, high-tensile steel strands used to reinforce pre-stressed concrete. Ideal for long-span structures, they reduce cracking, optimize material use, and provide a long-term structural advantage.

Advantages

- Low relaxation properties ensure long-term performance
- Cost-efficient and time-saving construction
- Reduced structural weight with enhanced load resistance

Quality Control and Assurance

- ISO 9001-certified production
- Conforms to EN, ASTM, and BS standards
- Thorough testing for tensile, relaxation, and surface quality

Applications

Commercial buildings

Bridges and tunnels

Tanks and silos

Parking structures

PC STRAND

TECHNICAL SPECIFICATION

ASTM A416M-2012 Low Relaxation

Grade	Nominal Diameter , d		Tolerance on Diameter	Area of Strand		Weight of Strand		Tensile Strength	Minimum Braking Load	Minimum Load at 1% Extension	Lay Length
-	mm	in	mm	mm²	in²	kg/ 1000m	lb/ 1000ft	N/mm²	KN	KN	mm
250	7.90	5/16	+/-0,40	37	0.058	294	197	1,725	64.5	58.1	(12 - 16) xd
	9.50	3/8	+/-0,40	52	0.080	405	272	1,725	89.0	80.1	
	11.10	7/16	+/-0,40	69.70	0.108	548	367	1,725	120	108.1	
	12.70	1/2	+/-0,40	92.90	0.144	730	490	1,725	160	144.1	
	15.20	6/10	+/-0,40	139	0.216	1090	737	1,725	240	216.2	
270	9.53	3/8	+0,65/-0,15	55	0.085	430	290	1,860	102	92.1	
	11.10	7/16	+0,65/-0,15	74.2	0.115	580	390	1,860	138	124.1	
	12.70	1/2	+0,65/-0,15	98.70	0.153	780	520	1,860	184	165.3	
	13.20	1/2 S	+0,65/-0,15	108	0.167	840	570	1,860	200	180.1	
	14.30	9/16	+0,65/-0,15	124	0.192	970	650	1,860	230	207.0	
	15.20	6/10	+0,65/-0,15	140	0.217	1100	740	1,860	261	234.6	
	15.70	6/10 S	+0,65/-0,15	150	0.231	1200	780	1,860	279	251.4	

- Maximum relaxation loss after 1000 hrs ≤ 2.5 % when initial load is at 70% of specified breaking load, and 3.5% when initial load is at 80% of specified breaking load.
- Minimum elongation, LO=610 mm: 3.5%.

PC STRAND

TECHNICAL SPECIFICATION

BS5896-2012 Relaxation Class 2

Steel Name	Steel Number	Diameter, d	Tensile Strength	Cross Sectional Area	Mass per meter	Deviation on Mass per meter	Characteristic Value of Max. Force Fm	Maximum Value of Max. Force	Fp 0,1%	Curvature of Strand	Lay Length mm
-	-	mm	N/mm²	mm²	g/m	%	KN	KN	KN		mm
Y1670S7	1.1364	15.2	1,670	139	1086	± 2	232	267	204	Max Bow Height=25mm /1meter	(14 - 18)xd
Y1770S7	1.1365	9.3	1,770	52	406.1	± 2	92	106	81		
Y1770S7	1.1365	11.0	1,770	70	546.7	± 2	124	143	109		
Y1770S7	1.1365	12.5	1,770	93	726.3	± 2	165	190	145		
Y1770S7	1.1365	12.9	1,770	100	781	± 2	177	204	156		
Y1770S7	1.1365	15.7	1,770	150	1172	± 2	266	306	234		
Y1860S7	1.1366	9.3	1,860	52	406.1	± 2	96.7	111	85.1		
Y1860S7	1.1366	9.6	1,860	55	429.6	± 2	102	117	89.8		
Y1860S7	1.1366	11.0	1,860	70	546.7	± 2	130	150	114		
Y1860S7	1.1366	12.5	1,860	93	726.3	± 2	173	199	152		
Y1860S7	1.1366	12.9	1,860	100	781	± 2	186	214	164		
Y1860S7	1.1366	15.2	1,860	139	1086	± 2	259	298	228		
Y1860S7	1.1366	15.7	1,860	150	1172	± 2	279	321	246		

- Max relaxation loss after 1000 hrs ≤ 2,5 % when initial load is at 70% of specified breaking load, 3,5% when initial load at 80% of specified breaking load.
- The diameter of central wire shall be at least 3% greater than the diameter of outer helical wire.
- Minimum elongation, LO=500 mm: 3.5%.

prEN10138 - 3:2011

Steel Name	Steel Number	Diameter, d	Tensile Strength	Cross Sectional Area	Mass per meter	Deviation on Mass per meter	Characteristic Value of Max. Force Fm	Maximum Value of Max. Force Fm	Fp 0,1%	Curvature of Strand	Lay Length mm
-	-	mm	N/mm²	mm²	g/m	%	KN	KN	KN		mm
Y1770S7	1.1365	9.3	1770	52	406.1	± 2	92	106	81	Max bow height= 25mm /1meter	(14 -18)xd
Y1770S7	1.1365	12.5	1770	93	726.3	± 2	165	190	145		
Y1860S7	1.1366	9.3	1860	52	406.1	± 2	96.7	111	85.1		
Y1860S7	1.1366	9.6	1860	55	429.6	± 2	102	117	89.8		
Y1860S7	1.1366	12.5	1860	93	726.3	± 2	173	199	152		
Y1860S7	1.1366	12.9	1860	100	781	± 2	186	214	164		
Y1860S7	1.1366	15.2	1860	139	1086	± 2	259	298	228		
Y1860S7	1.1366	15.7	1860	150	1172	± 2	279	321	246		

- The diameter of central wire shall be at least 3% greater than the diameter of outer helical wire.
- Minimum elongation, LO=500 mm: 3.5%

Packaging Dimensions

Inner Diameter = (800) mm. **Outer Diameter** = (1000 – 1500) mm. **Width** = (750) mm.

Weight = (3 – 4) Tons.

PC WIRES

Product Overview

Designed for long-lasting structural reinforcement, our PC Wires combine strength with reliability. These low-relaxation wires are optimized to boost the load-bearing capacity of concrete components across infrastructure projects.

Advantages

Improved elongation and yield strength

Excellent bonding with concrete in precast systems

Exceptional load control with minimal relaxation loss

Quality Control and Assurance

- International standard conformity testing
- End-to-end process audits and raw material validation

Applications

Concrete pipes

Railway sleepers and bridge decks

Hollow-core slabs and floor systems

PC WIRE

TECHNICAL SPECIFICATION

PCW

Diameter (mm)	Tensile strength (KN)	Weight/m (g/m)	Cross section area (mm^2)	Permissible deviation in W/m (%)	Braking load (KN)	Min. Elongation (%)
4	1860	98.4	12.6	±2	26.9	3.5
5	1860	153.1	19.6	±2	42	3.5
6	1770	221	28.3	±2	57.6	3.5
7	1770	300.7	38.5	±2	78.3	3.5
8	1670	392.8	50.3	±2	96.6	3.5
9.4	1570	542	69.4	±2	109	3.5

PC BAR

Product Overview

Our PC Bars are precision-manufactured cold-drawn steel bars that meet the high-performance demands of modern infrastructure.
Whether smooth or indented, these bars are stress-eliminated and customized for durability, resilience, and flexibility under load.

Advantages

- Superior fatigue resistance and flexibility
- Suitable for corrosive environments with optional coatings
- Enhanced ductility and dimensional stability

Quality Control and Assurance

- ISO, ASTM, and BS compliant testing
- In-line process control for dimensional accuracy
- QA backed by ISO 9001, 14001, and 45001 systems

Applications

Railway sleepers

Precast and cast-in-place reinforced concrete

PC WIRE

TECHNICAL SPECIFICATION

PC Bars

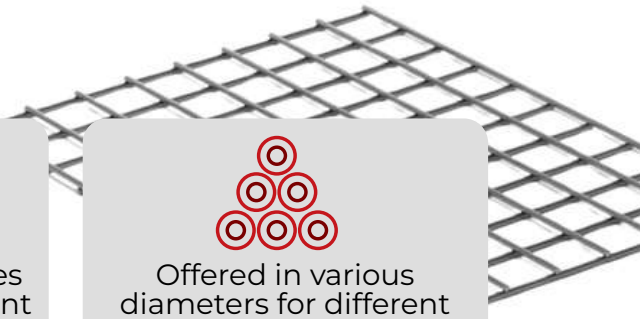
Standard	Diameter	Cross section Area	Weight	Tensile Strength	Characteristic value of maximum force	Maximum value of maximum force	Characteristic value of 0,1 % proof force	Minimum Elongation	Maximum curvature
	mm	mm²	g/m	N/mm²	KN	KN	KN	%	mm/1m
prEN10138-2	7,00	38,5	300,7	1770	68,1	78,3	59,9	3,5	2,5
	8,00	50,3	393	1670	84	96,6	73,9		
	9,00	63,6	469,70	1570	99,9	115	87		
	9,40	69,4	542,00	1570	109	125	95		

WELDED WIRE MESH

Product Overview

Welded Wire Mesh is a prefabricated steel reinforcement product designed to enhance construction efficiency and precision. It consists of longitudinal and transverse cold-drawn wires arranged perpendicularly and welded together at every intersection using high-speed electrical resistance machines. This design ensures consistent spacing, strength, and structural performance across every sheet.

Advantages



- Accelerates construction by eliminating manual tying
- Precise spacing ensures consistent reinforcement strength
- Offered in various diameters for different reinforcement needs.

Applications

Concrete slabs

Precast concrete tunnels & pipes

Boundary walls

Canal linings

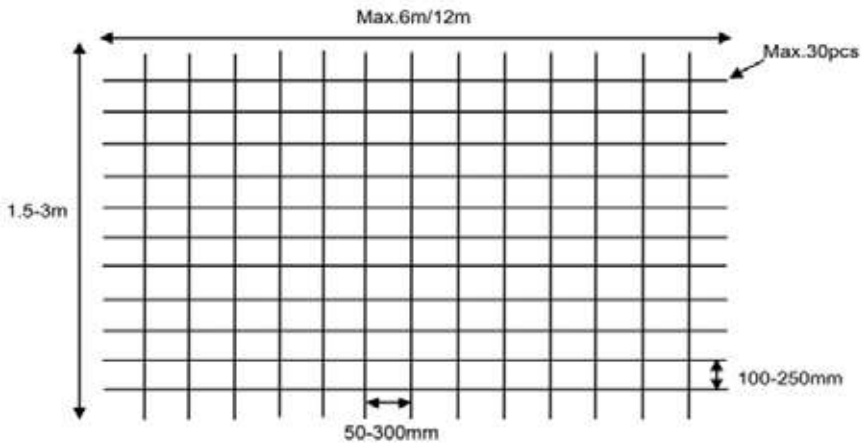
Irregular Surfaces

Road pavements

WELDED WIRE MESH

TECHNICAL SPECIFICATION

NOMINAL DIAMETER (mm)	NOMINAL CROSS SECTION AREA (mm^2)	WELDED JOINT SHEAR FORCE (kN), MIN.			
		ES 262-3/2015 ISO 6935-3/2023	BS: 4483:2005		ASTM A1064M-2024
		Grade CRB500	Grade 250	Grade B500A Grade B500B	Gr. 65, Gr. 70, Gr. 72.5, Gr. 75 Gr 77 5 Gr 80
5	19.6	2.94	1.191	2.377	4.724
5.5	23.7	3.555	1.44	2.874	5.712
6	28.3	4.245	1.719	3.431	6.82
6.5	33.2	4.98	2.017	3.431	8.001
7	38.5	5.775	2.339	4.668	9.279
7.5	44.2	6.63	2.685	5.359	10.652
8	50.2	7.53	3.05	6.087	12.098
8.5	56.7	8.505	3.445	6.875	13.665
9	63.6	9.54	3.864	7.712	15.328
9.5	70.8	10.62	4.301	8.585	17.063
10	78.5	11.775	4.769	9.518	18.919
10.5	86.5	12.975	5.255	10.488	20.847
11	95	14.25	5.771	11.519	22.895
11.5	103.8	15.57	6.306	12.586	25.016
12	113	16.95	6.865	13.701	27.233



Shear Force Calculation
* For ISO Standard:
Shear force = (0.3 * Re (Yield strength) * An (Nominal Cross section))/1000
* For BS Standard:
Shear force = (0.25*0.97*Re (Yield strength) * An (Nominal Cross section)/1000
* For ASTM Standard:
Shear force = (241*An (Nominal Cross Section))/1000

REINFORCEMENT STEEL WIRE

Product Overview

Reinforcement steel is a cold drawn ribbed or plain wire made with the highest quality wire rods. The coils are processed on straightening, bending and cutting machines into bars and shackles. This product is used for armoring buildings, bridges, and more. Available from 4mm to 12mm diameters and up to 12m in length, delivered in coils or bundles according to customer specifications.

Advantages

Delivers strong mechanical performance with tensile strength up to 650 MPa.

Available in multiple diameters to suit a variety of applications.

Supports bending and shaping with elongation values between 5% and 8%.

Applications

Concrete slabs

Precast concrete elements

Stirrups

REINFORCEMENT STEEL WIRE

TECHNICAL SPECIFICATION

Steel Bars

Size (mm)										
	4.0	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
	9.5	10.0	10.5	11.0	11.5	12.0				

Bar

Wire Length

Cold drawn wire is produced From 1m up to 12m according to customer requirements.

Length Weight

Bundles varies betwwen (500 to 2500) Kg according to customer requirements.

Coil dimension

Coil Weight

Maximum Weight =2.0 tons

Coil Dimension

Inner Diameter : 500 mm Outer Diameter : 1300 mm Height : 600 mm

TIRE REINFORCEMENT

TIRE BEAD WIRE

Product Overview

Our Tire Bead Wire ensures safety and structural stability within tires by maintaining their shape under extreme internal pressure. Custom- formulated and tightly controlled, it's the reinforcement backbone for tires used in every transport segment.

Advantages

- Excellent adhesion to rubber
- High tensile strength and fatigue resistance
- Eco-efficient manufacture for a greener supply chain

Quality Control and Assurance

- Destructive and non-destructive adhesion testing
- Coating layer verification and uniformity checks

Applications

Aircraft tires | Passenger tires | Agricultural tires | OTR and TBR tires | Motorcycle & Bicycle Tires

TIRE BEAD WIRE

TECHNICAL SPECIFICATION

Standard Units

		Reelles Coil C1000	Metal Reel BS 450/6	Metal Reel BS 900	Me 1150 tal Reel BS
Diameter of Flange	mm	-	760	760	760
Diameter of Barrel	mm	-	437	355	355
Overall Width	mm	-	38.5	345	385
Traverse	mm	-	385	320	320
Bore	mm	-	280	70.5 or 33	70.5 or 33
Number x Diameter of Drivehole	mm	-	70.5	2/20+2/35	2/20+2/35
Distance Drivehole/Bore	mm	-	2/35	63.5 + 115	63.5 + 115
Overall Diameter	mm	720	115		
Core Diameter	mm	355	-		
Approx. Wire Capacity	kg	445	445	450	520

low Tin: Sn: 1-3 %, Cu: 99-97 %
High Tin: Sn: 6-12 %, Cu: 94-88 %

Coating composition as per customer requirement can be manufactured


ELSEWEDY
STEEL

TIRE BEAD WIRE

TECHNICAL SPECIFICATION

Technical Specifications

Wire Diameter (mm)	Tolerance (mm)	Tensile Type	Tensile Class (N/mm²)	Breaking Force Minimum (N)
0.89	+/- 0.02	NT	≥ 2100	≥ 1200
0.965	+/- 0.02	NT	≥ 2000	≥ 1350
1.42	+/- 0.02	NT	≥ 1950	≥ 2880
1.55	+/- 0.02	NT	≥ 2000	≥ 3525
1.65	+/- 0.02	NT	≥ 1850	≥ 3680
1.82	+/- 0.03	NT	≥ 1650	≥ 3970
2.0	+/- 0.03	NT	≥ 1800	≥ 5260
3.0	+/- 0.03	NT	≥ 1750	≥ 11000
0.89	+/- 0.02	HT	≥ 2350	≥ 1350
0.965	+/- 0.02	HT	≥ 2250	≥ 1530
1.295	+/- 0.02	HT	≥ 2250	≥ 2795
1.55	+/- 0.02	HT	≥ 2200	≥ 3900
1.6	+/- 0.02	HT	≥ 2200	≥ 4150
2.0	+/- 0.03	HT	≥ 2100	≥ 6205
2.2	+/- 0.03	HT	≥ 2100	≥ 6864

Sizes and Tensile strengths as per customer requirement can also be manufactured

ELSEWEDY STEEL is able to supply any bead wire diameter between **0.7 and 3 mm** Bronze coating from 1 to 12% Sn.

Standard Packing Units

Reels Type	Number	Protection	Length (mm)	Width (mm)	Height (mm)	Approx. Tare (kg)	Approx. Net (kg)
C 1000	2	Cardboard	765	765	730	28	890
C 1000	2	Polyethylene	765	765	740	30	890
900	3	Polyethylene	1160	760	150	306	450
1150	3	Polyethylene	1280	760	150	327	520

HANDSAMPLES

Upon request, a number of samples are provided.

Per reel, 10 pieces of wire, each 450 mm long, are put in a plastic bag with desiccant, which goes with the shipment.

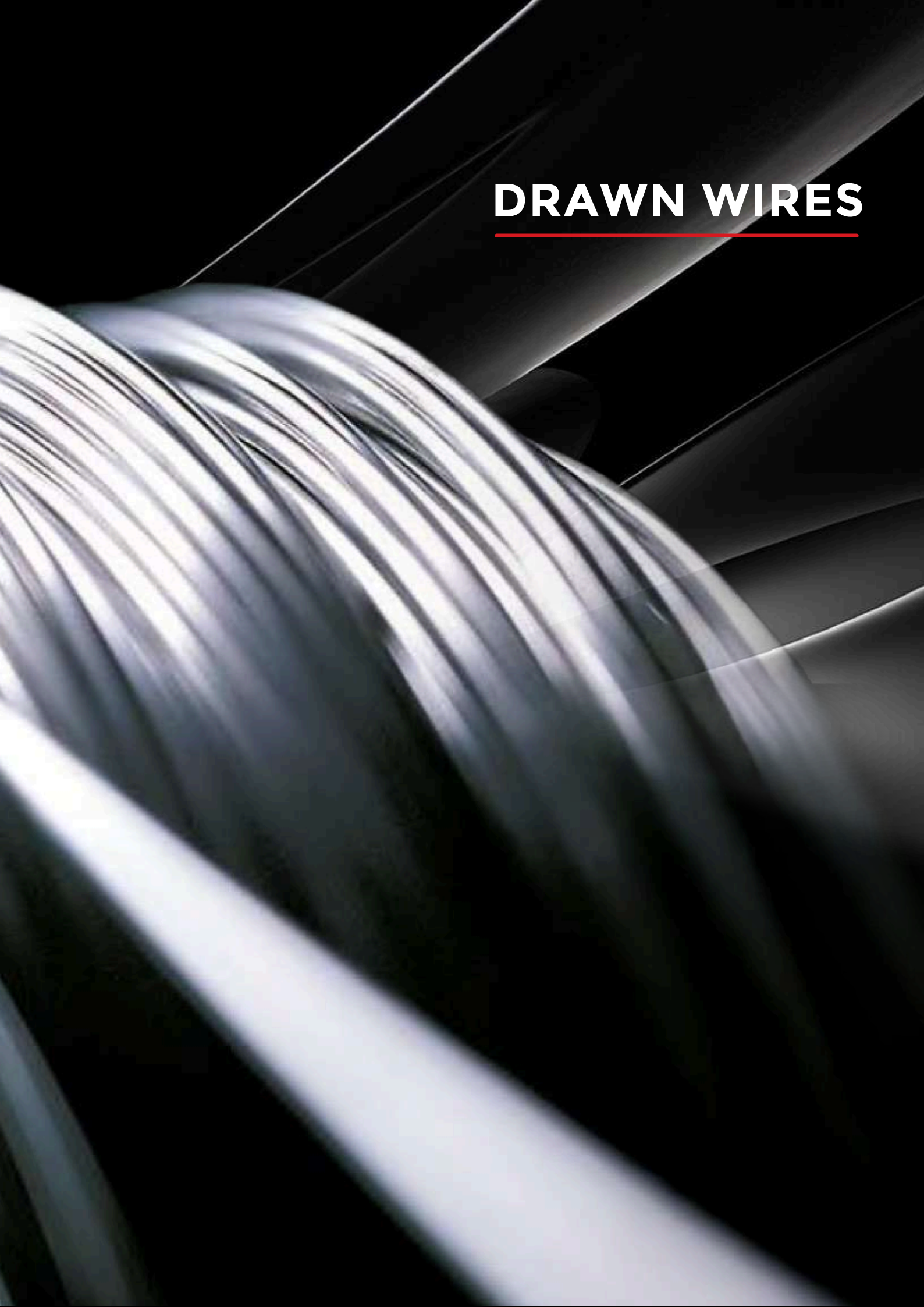
ORDERING PROCEDURE

Inquiries or orders of bead wires must specify:

- Dimensions and Type of Wire, Type of Coating, Type of Reel, Total Quantity.
- Customer specific Requirements if any.
- National/International Standard to be followed.

RETURN OF PACKING

Spools and Pallets (cages) are to be returned to the plant of origin.



DRAWN WIRES

GALVANIZED STEEL WIRE

Product Overview

Built for endurance and corrosion protection, our hot-dip galvanized wires are trusted for energy, construction, and utility applications. These wires combine mechanical performance with exceptional surface protection.

Advantages

Ideal for humid, coastal, and high-pollution environments

Uniform zinc coating for long-term corrosion resistance

Excellent conductivity and tensile strength

Quality Control and Assurance

- Zinc adhesion, weight, and continuity testing
- Certified compliance with IEC, ASTM, and BS EN standards

Applications

Overhead power transmission and stay wires

Earth wires and damper conductors

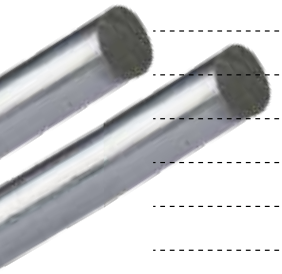
Industrial fencing and mesh products

GALVANIZED STEEL WIRE

TECHNICAL SPECIFICATION

LOW CARBON GALVANIZED STEEL WIRES

High Carbon Steel Wires



Diameter (mm)	Tolerance (mm)	Tensile Strength Range (m^2)
1.30	+/- 0.030	1,600
2.00	+/- 0.050	1,300 – 1,650
2.20	+/- 0.050	1,250 – 1,700
2.40	+/- 0.050	1,230 – 1,600
4.00	+/- 0.050	950 – 1,500
4.80	+/- 0.050	1,400
5.00	+/- 0.050	1,370

HIGH CARBON GALVANIZED STEEL WIRES & STRANDS

High Carbon Galvanized Steel Wires

Diameter (mm)	Tolerance (mm)	Minimum Ultimate Tensile Strength (N/mm^2)	Minimum Zinc Weight for Cables application (g / m^2)	Minimum Zinc Weight for commercial market (g / m^2)
1.45	+/- 0.030	1,450	200	40
2.00	+/- 0.050	1,450	215	50
2.50	+/- 0.050	1,410	230	50
2.70	+/- 0.050	1,410	230	50
3.00	+/- 0.050	1,410	230	60
3.50	+/- 0.050	1,410	245	60
4.00	+/- 0.050	1,380	245	80
4.80	+/- 0.050	1,380	260	80
5.00	+/- 0.050	1,380	260	80

High Carbon Galvanized Steel Strands

No. of Wires	Diameter (mm)	Tolerance (mm)	Minimum Ultimate Tensile Strength (N/mm^2)	Minimum Zinc Weight for commercial market (g / m^2)	Grease Y/N
7	1.45	+/- 0.030	1,450	183	Y
19	1.68	+/- 0.030	1,450	198	Y
7	2.15	+/- 0.030	1,450	214	Y
19	2.68	+/- 0.050	1,410	229	Y (7 wires layer)
7	3.00	+/- 0.050	1,410	244	Y
7	3.40	+/- 0.050	1,410	259	Y
7	4.00	+/- 0.050	1,380	274	N
7	4.45	+/- 0.060	1,380	305	N

BLACK WIRE

Product Overview

These wires are designed for demanding mechanical applications where strength, hardness, and flexibility are essential. Used across multiple commercial and manufacturing industries, Elsewedy's high carbon wires deliver reliability where it matters most.protection.

Advantages

Scalable across different diameters and strength grades

Consistent roundness and surface finish

High strength and excellent fatigue performance

Quality Control and Assurance

- Tensile strength and microhardness monitoring
- In-line surface flaw detection and straightness control

Applications

Spring and mattress wire

Mechanical fasteners and general-purpose uses

Agricultural and fencing applications

BLACK HIGH CARBON STEEL WIRE

TECHNICAL SPECIFICATION

High Carbon Steel Wires

Diameter (mm)	Tolerance (mm)	Tensile Strength Range (m^2)
1.30	+/- 0.030	1,600
2.00	+/- 0.050	1,300 – 1,650
2.20	+/- 0.050	1,250 – 1,700
2.40	+/- 0.050	1,230 – 1,600
4.00	+/- 0.050	950 – 1,500
4.80	+/- 0.050	1,400
5.00	+/- 0.050	1,370

SUSTAINABILITY

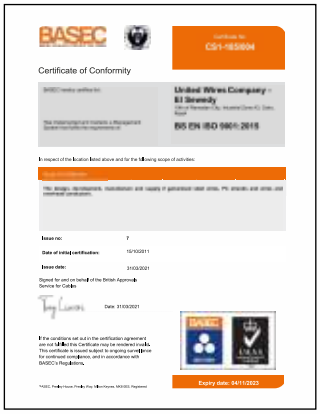
Sustainability is a core pillar of our operations at Elsewedy Steel. We are committed to reducing our environmental impact through responsible sourcing, energy-efficient manufacturing, and continuous innovation. In alignment with global sustainability standards, we actively pursue certifications such as CBAM (Carbon Border Adjustment Mechanism), IATF (International Automotive Task Force), and EPD (Environmental Product Declaration) to ensure transparency and accountability. Our mission is to contribute to a greener, more sustainable future, delivering steel solutions that support both structural resilience and environmental responsibility.

EPD®
ENVIRONMENTAL PRODUCT DECLARATION

CBAM

IATF International Automotive Task Force

ELSEWEDY ELECTRIC
Among TIME 500 World's
Best Companies 2025 In Sustainable Growth



BASEC BS EN ISO 9001:2015

EGAC- ISO 17025

ISO 14001

ISO 45001

Dubai Central Laboratory Department (DCLD) product conformity

Sudan Approval

CARES BS EN 9001

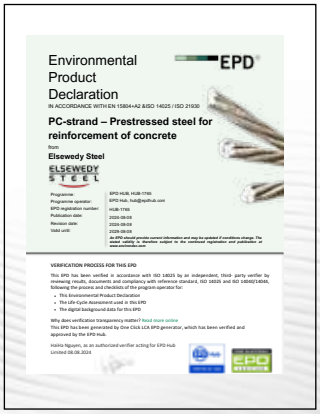
ISO 45001

Roads and Transport Authority (RTA) Approval

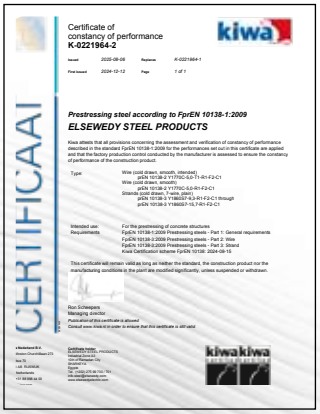
Romania Technical Approval

ASQPE Approval

ZUS



EPD



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