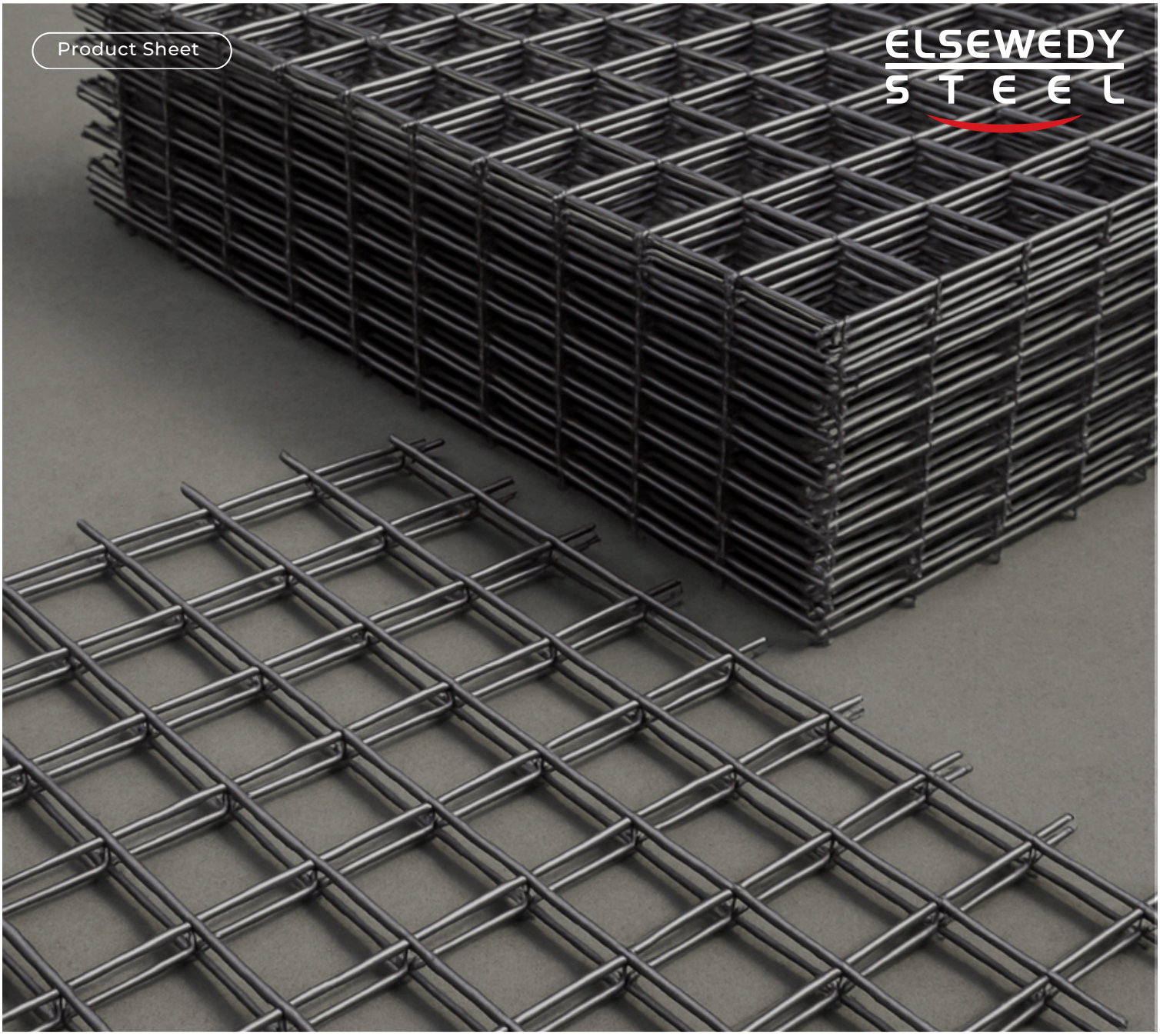
Product Sheet



WELDED WIRE MESH

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.

Key Features

Welded Wire Mesh significantly speeds up site installation by eliminating manual tying and reducing manpower requirements. It supports larger slab spans with fewer columns, reduces offcuts and material wastage, and improves overall project control and quality assurance. A variety of diameters and spacings are available to meet different structural requirements.

Application

Welded Wire Mesh is ideal for precast concrete units, canal linings, tunnels, pipes, slabs on grade, floor slabs, walls, road pavements, highways, and airport runways. It offers a faster, cleaner, and more controlled alternative to traditional rebar tying, making it the reinforcement of choice for modern construction.

Definitions – According to ES 262-3:2015 AND ISO ISO 6935-3:2023

Length of the Welded Wire Mesh
Longest side of a sheet of Welded Wire Mesh, irrespective of the manufacturing direction.

Width of the Welded Wire Mesh
Shortest side of a sheet of Welded Wire Mesh, irrespective of the manufacturing direction.

Longitudinal Wire
Reinforcing steel in the manufacturing direction of the Welded Wire Mesh.

Transverse Wire
Reinforcing steel perpendicular to the manufacturing direction of the Welded Wire Mesh.

Pitch of Welded Wire Mesh
The distance between center to center of wires. In a sheet of Welded Wire Mesh. For twin wire mesh, the pitch is measured between the tangents of the adjacent wires.

Overhang of Welded Wire Mesh
Length of longitudinal or transverse wires beyond the center of the outer crossing wire in a sheet of Welded Wire Mesh. For twin wire mesh, the overhang is measured from the tangent line of the adjacent wires.

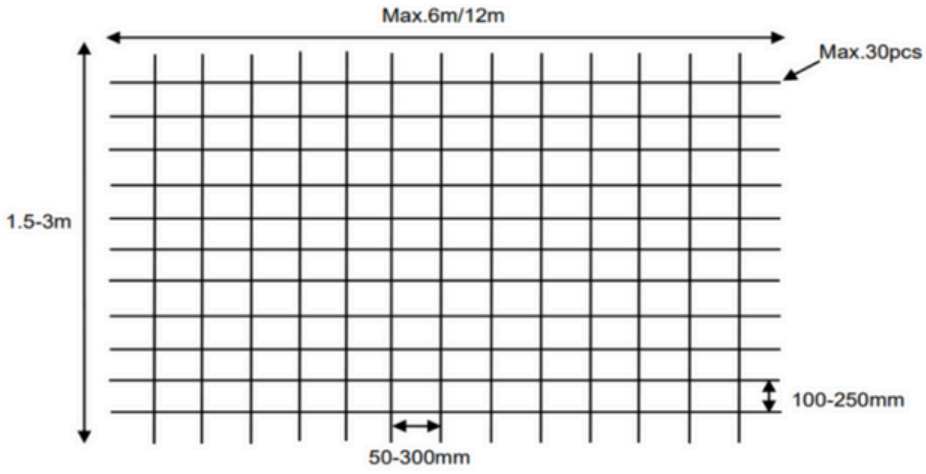
Welded Wire Mesh Technical Dimensions

Diameter Sizes
From 4 mm to 12 mm diameter, in 0.5 mm increments.

Wire Space
Line wire space: 100-250 mm.
Cross wire space: 50-300 mm.

Overhangs
Longitudinal space: 100 mm.
Transverse space: 50 mm.

Maximum Dimensions
Length: 12 m, Width: 3 m.



Producible Standards

International Standard	ISO 10544: 2024
British Standard	BS 4449:2005 + A3:2016, BS 4482:2005
American Standard	ASTM A1064M-2024

International Standard

Standard	ISO 10544: 2024
Issuing Country	International

GRADE	CHEMICAL COMPOSITION (MAXIMUM %)								MECHANICAL PROPERTIES (MINMUM)				
	C	Si	Mn	P	S	Cu	N	CEV	Yield Strength (MPA)	Tensile Strength (MPA)	Tensile to Yield Strength	El.A 5.65 (%)	Agt (%)
CRB500	0.25	0.6	1.6	0.045	0.045	0.8	0.012	0.5	500	550	1.03	12	2.5

British Standard

Standard	BS 4482:2005
Issuing Country	Britan

GRADE	CHEMICAL COMPOSITION (MAXIMUM %)								MECHANICAL PROPERTIES (MINMUM)				
	C	Si	Mn	P	S	Cu	N	CEV	Yield Strength (MPA)	Tensile Strength (MPA)	Tensile to Yield Strength	El.A 5.65 (%)	Agt (%)
250	0.22	-	-	0.05	0.05	0.8	0.012	0.42	250	-	1.15	-	5
500									500	-	1.05	-	2.5

Standard	BS 4482:2005+ A3:2016
Issuing Country	Britan

GRADE	CHEMICAL COMPOSITION (MAXIMUM %)								MECHANICAL PROPERTIES (MINMUM)				
	C	Si	Mn	P	S	Cu	N	CEV	Yield Strength (MPA)	Tensile Strength (MPA)	Tensile to Yield Strength	El.A 5.65 (%)	Agt (%)
B500A	0.22	-	-	0.05	0.05	0.8	0.012	0.42	500-650	-	1.05	-	2.5
B500B									500-650	-	1.08	-	5

American Standard

Standard	ASTM A1064M-2024
Issuing Country	America

GRADE	CHEMICAL COMPOSITION (MAXIMUM %)								MECHANICAL PROPERTIES (MINMUM)			
	C	Si	Mn	P	S	Cu	N	CEV	Yield Strength (MPA)	Tensile Strength (MPA)	Tensile to Yield Strength	Reduction Of Area
GR. 65	-	-	-	-	-	-	-	-	450	515	-	30
GR. 70	-	-	-	-	-	-	-	-	485	550	-	30
GR. 72.5	-	-	-	-	-	-	-	-	500	568	-	30
GR. 75	-	-	-	-	-	-	-	-	515	585	-	30
GR. 77.5	-	-	-	-	-	-	-	-	533	603	-	30
GR. 80	-	-	-	-	-	-	-	-	550	620	-	30

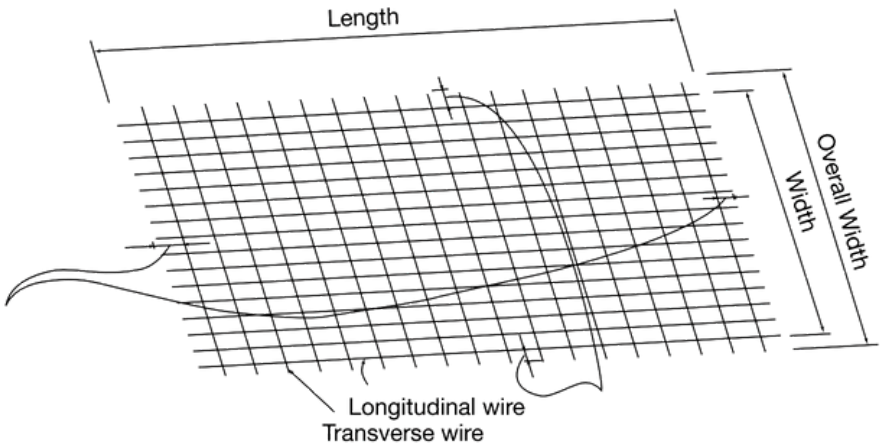
Physical Characteristics of Cold-Drawn Wires

SIZE (mm)	NOMINAL UNIT WEIGTH (kg/m)	UNIT WEIGHT TOLERANCE (%)			
		ISO 10544:2024	BS 4482:2005	BS 4449:2005 + A3:2016	ASTM A1064M-2024
5	0.154	±4	±6.0	±6.0	±6.0
5.5	0.187				
6	0.222				
6.5	0.26				
7	0.302				
7.5	0.347				
8	0.395				
8.5	0.445		±4.5	±4.5	
9	0.499				
9.5	0.556				
10	0.617				
10.5	0.68				
11	0.746				
11.5	0.815				
12	0.888				

Mechanical Properties

Welded Joint Shear Force

NOMINAL DIAMETER (mm)	NOMINAL CROSS SECTION AREA (mm²)	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	4.026	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