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S T E E L W I R E

**OUR RED LINE
is quality**



STEEL WIRE

As the leader of its sector, Çelik Halat ve Tel Sanayi A.Ş. was established in 1962 to supply high carbon wires and steel wire ropes and has started production in 1968. Çelik Halat ve Tel Sanayi A.Ş. invested new patenting and galvanized wires as well as new drawing machines in 2009 to increase production capacity in order to meet customer requirements.

MECHANICAL SPRING WIRE

Mechanical spring wires are used in compression, extension, torsion, wire and band form springs that have a large range of application primarily in automotive, white goods and agriculture sectors.

All spring wires are produced in our plant by the advanced technology and modern machinery in conformity with international standards. Production is made in range of 0,30 mm and 12 mm diameters as SH - DM - DH and up to 13 mm for SL & SM quality by advanced technology.

GALVANIZED WIRE

Galvanized wire is produced in compliance with international that they have proper zinc coating amount, homogeneous plating, smooth external surface features and bright appearance. Production is made in range of 0,30 mm and 3,80 mm by advanced technology.

PATENTED WIRE

Patented wires can be produced both with galvanized and phosphated finish in our high technology lines and they are mainly used for redrawing purposes. (redrawing for spring wires, steel wire ropes, flat shaped wires) Our patented galvanized wires are also used in many applications in the agricultural sector.

PACKAGING TYPES			
COILS		MINI Z-2	
Wire Dia. (mm)	Coil Weight (kg)	Wire Dia. (mm)	Coil Weight (kg)
0,40-0,55	25	0,60-1,30	150-250
0,60-1,10	20	Z-2	
1,20-1,30	20-40	Wire Dia. (mm)	Coil Weight (kg)
1,4	80-150	0,60-2,50	250-450
1,50-1,70	150	Z-3	
1,80-1,90	200	Wire Dia. (mm)	Coil Weight (kg)
2,00-2,80	250	1,60-6,50	400-800
2,90-3,40	300	Z-4	
3,50-3,90	400	Wire Dia. (mm)	Coil Weight (kg)
4,00-5,00	450	1,60-6,50	1000-1250
5,00-13,00	500	Z-5	
		Wire Dia. (mm)	Coil Weight (kg)
		4,50-10,00	1250-1500

QUALITY

We are testing final products in accordance with the demands of international standards in our high technology test laboratories. Superb surface quality is maintained through Eddy Current testing method in order to assure quality products as an industry standard.

APPROXIMATE EQUIVALENTS			
	EUROPEAN		AMERICAN
DESIGNATION	EN STANDARD	DIN	ASTM
SL	EN 10270-1	CLASS A	A 227
SM	EN 10270-1	CLASS B	A 227
SH	EN 10270-1	CLASS C	A 228
DM	EN 10270-1	CLASS D	A 227
DH	EN 10270-1	CLASS D	A 228

TYPES OF WIRES FOR SPRINGS. CLASSED ACCORDING TO EN 10270-1:		
TENSILE STRENGHT	STATIC CONDITIONS	DYNAMIC CONDITIONS
LOW	SL	-
MEDIUM	SM	DM
HIGH	SH	DH



HARD DRAWN STEEL WIRE - CHEMICAL COMPOSITION, MASS % EN 10270-1							
		Chemical Composition %					
Designation	European Standard (EN)	C	Si	Mn	Max. P	Max. S	Max. Cu
SL	EN 10270-1	0.35 - 1.00	0.10 - 0.30	0.40 - 1.20	0.035	0.035	0.20
SM	EN 10270-1	0.35 - 1.00	0.10 - 0.30	0.40 - 1.20	0.035	0.035	0.20
SH	EN 10270-1	0.35 - 1.00	0.10 - 0.30	0.40 - 1.20	0.035	0.035	0.20
DM	EN 10270-1	0.45 - 1.00	0.10 - 0.30	0.40 - 1.20	0.020	0.025	0.12
DH	EN 10270-1	0.45 - 1.00	0.10 - 0.30	0.40 - 1.20	0.020	0.025	0.12

APPLICATION OF HARD DRAWN STEEL WIRE	
TYPE	Application of Hard Drawn Steel Wire
SL	Tension, compression or torsion springs that are chiefly subjected to low static stress.
SM	Tension, compression or torsion springs that are subjected to medium - high static stresses or ,rarely, dynamic stresses.
DM	Tension, compression or torsion springs that are subjected to medium high dinamic stresses.Also for wire shapes that require severe bending.
SH	Tension, compression and torsion springs that are subjected to high static stresses or moderately dynamic stresses.
DH	Tension , compression and torsion springs that are mainly submitted to high static strains and to medium levels of dynamic strains.