

DRAWN WIRE FOR SPRINGS

Thanks to a company history starting already 1873, Fagersta Stainless belongs to one of the world leading producers of stainless wire rod and wire. With customized chemistries the products fulfill everything from simple to high demanding applications.

STANDARD STEEL GRADES FOR SPRINGS

Our grades have tight chemistries and therefore equal properties from delivery to delivery.

We recommend following of our standard grades:

OPTIMUM DRAWN WIRE FOR SPRINGS

To get best possible properties for spring wire, these parameters are important:

- Tight chemistry for identical properties
- Mechanical properties and deformation hardening
- Corrosion properties
- Surfaces
- Dimension tolerances

Grade family	Marcegaglia name	Fagersta	EN	ASTM		PRE	CWH	Typical chemical composition, % by mass					
				TYPE	UNS			C	Cr	Ni	Mo	N	Others
A	321/4541	R359.10	1.4541	321	S32100	19	103	0.03	17.8	9.2	-	-	Ti
A	302/4310/304H/4948	R320.17	1.4310/1.4948	302/304H	S30200	20	130	0.07	18.35	8.1	-	0.04	-
A	316L/4404	R425.20	1.4401	316L	-	24	95	0.03*	16.70	10.10	2.07	-	-
PH	17-7PH	R560.21	1.4568	631	S17700	17	150	0.078	16.5	7.65	-	-	0.95Al
D	2205	R647.21	1.4462	-	-	38	-	0.017	22.30	5.20	3.20	0.18	-

Grade families: A = austenitic, PH = precipitation hardening. *Max



MECHANICAL PROPERTIES AND DEFORMATION HARDENING

Depending on end-product's shape and required tensile strength, the wire should have specific ductility (formability) for the cold heading process and specific level of deformation hardening.

APPLICATIONS

There is a great variety of springs from regular springs in mild conditions to more corrosive conditions

CORROSION

PRE (Pitting Resistance Equivalent) is a factor comparing properties of different chemistries with regards to pitting and crevice corrosion in corrosive environments. A higher value means better resistance. In the table above, PRE is shown for the grades we recommend for springs.

SURFACES

Cold drawn wire with soap coated, bright Royal or dull surface

DIMENSIONS

Standard: 1.5 – 6.00 mm (0.059 inch - 0.236 inch)

Tolerance: according to h9 EN10278 and T14 ISO_6931-1

Ovality: max 50% of the total tolerance span

PACKAGING METHODS

Several options available in coil and spool. Check our packaging leaflet for more information.