

Wire

Cold Heading



Bright Forming



Spoke



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.

IMPORTANT PROPERTIES FOR BRIGHT FORMING WIRE

For best possible properties, following parameters are important:

- Bright surfaces with high surface smoothness
- Equal mechanical properties
- Corrosion properties
- Dimension tolerances

STANDARD STEEL GRADES FOR BRIGHT FORMING WIRE

Due to a close cooperation with our suppliers we have the possibility to offer customized chemistries on top of the grades we have in our standard range. Fagersta Stainless produces bright forming wire in a large number of austenitic, ferritic and Duplex stainless steel grades, which makes it possible for us to supply material for applications in various environments. We stock bright forming wire with dimensions of 2-8 mm:

EN. Nr	TYPE / AWS	FAGERSTA	C %	Si %	Mn %	Cr %	Ni %	Mo %	N %	TS N/mm ²	CWH	Md30 Nohara	PRE
1.4016	430	R 250.11	0.020*	0.30	0.70	16.40	0.30*	0.10*	0.030*	550-650			17
1.4016	430	R 250.30	0.020*	0.30	0.70	16.40	0.30*	0.10*	0.050	550-650			17
1.4301	304	R 350.19	0.030	0.40	1.50	18.20	8.20	0.60*	0.050*	800-1000	108	9	20
1.4307	304 L	R 350.43	0.020*	0.50	1.15	18.30	8.50	0.60*	0.060*	800-1000	93	2	20
1.4404	316 L	R 425.10	0.020*	0.35	1.55	16.80	11.20	2.10	0.050*	800-1000	92	-90	24

(Other grades from our standard range are displayed on the reverse side)

MECHANICAL PROPERTIES

Our standard is to supply bright forming wire with a tensile strength of 750 – 1000 N/mm². By choosing a specific grade and how we process it in production, we can adjust the mechanical properties according to the customers wishes and therefore offer other intervals of tensile strength.

Tensile strength: Customized levels
 Max 40 N/mm² variation within a coil
 Max 100 N/mm² variation from delivery to delivery

Yield strength: With customized chemistries we can control yield strength in relation to tensile strength

CORROSION

PRE (= Pitting Resistance Equivalent = Cr + 3.1 x Mo + 25 x N) 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 bright forming wire. Surface smoothness is also an important factor to prevent corrosion.

BRIGHT SURFACES

Products made from bright forming wire are often used in environments where there are high demands with regards to hygiene and aesthetical properties. It is therefore important that the surfaces are bright and free from defects, which also gives an optimum result at the electropolishing process. We have developed our own various bright drawing methods which makes it possible for us to offer everything from standard to high demanding surfaces:

- FAGERSTA Standard
- FAGERSTA PCD
- FAGERSTA Royal

DIMENSIONS

1.50



10.00

Standard: 1.50 – 10.00 mm (.059" - .394")

Tolerance: h9 according to EN 10278

1.50 – 3.00	+ 0 / - 0.025
3.01 – 6.00	+ 0 / - 0.030
6.01 – 10.00	+ 0 / - 0.036

Ovality: Max 50% of the total tolerance span

PACKAGING METHODS

The wire is supplied in various packagings depending on the needs of the customer. See separate leaflet.

