

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 SPOKE WIRE

After decades of close cooperation with our customers, we have developed spoke wire that fulfills the high requirements on the products properties:

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

STANDARD STEEL GRADES FOR SPOKE WIRE

We recommend following standard grades:

EN. Nr	TYPE / AWS		FAGERSTA	C	Si	Mn	Cr	Ni	Mo	N	TS	CWH	Md30	PRE
				%	%	%	%	%	%	%	N/mm ²		Nohara	
1.4016	430		R 250.17	0.050	0.40	0.50	16.80	0.30*	0.50*	0.050*	900-1100			17
1.4301	304		R 350.19	0.030	0.40	1.50	18.20	8.20	0.60*	0.050*	900-1200	108	9	20
1.4310	302		R 300.20	0.052	0.45	1.20	17.40	8.25	0.60*	0.050	900-1200	128	4	19
1.4372	201		R 520.12	0.090	0.45	5.90	17.00	5.30	0.60*	0.070	900-1200			20
1.4162		2101	R 617.10	0.030	0.70	5.00	21.50	1.50	0.30	0.220	1000-1200			28

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

MECHANICAL PROPERTIES

We can control mechanical properties and surface conditions by choosing a specific grade and how we process it in production:

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

Elongation: By testing and calculating Md30 we can control elongation 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 spoke wire. Surface smoothness is also an important factor to prevent corrosion.

BRIGHT SURFACES

Spoke wire is often used in environments where there are high demands with regards to aesthetical properties. It is therefore important that the surfaces are bright and free from defects. 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



Standard: 1.50 – 5.00 mm (.059" - .197")

Tolerance: h9 according to EN 10278 1.50 – 3.00 + 0 / - 0.025
 3.01 – 5.00 + 0 / - 0.030

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.

