FAGERSTA Stainless

R108.10

EN:
Type: **409Cb**

R108.10 is nonhardenable ferritic stainless steel with columbium stabilization. The physical, mechanical and corrosion properties are almost identical with R109.10 (Type 409). This steel was primarily intended for different parts in automotive exhaust systems, where the metal temperatures in catalytic converters can exceed approx. 500°C (930°F). R108.10 is resistant to corrosion in fresh water, organic materials and mild acids and has been used extensively in automotive exhaust systems.

CHEMICAL COMPOSITION (Nominal) %

C	Si	Mn	Cr	Ni	Mo	Nb/Cb*		
<0.050	0.60	0.60	11.3	0.35	<0.10	0.35		

PRE: 12 (PRE = Cr + 3.1 x Mo + 25 x N)

Comments: *min.10x%C

THERMAL TREATMENT

Annealing temperature	750-800	°C
	1380-1470	°F

PHYSICAL PROPERTIES

Condition: Annealed

Density	7.6	g / cm^3
Moduls of elasticity, E	208 000	GPa
Specific heat 0-100°C	460	J / kg°C

MAX. OPERATING TEMPERATURE

Operating temp. in air	730	°C
	1350	°F
Scaling temp. in air		°C
		°F

TYPICAL MECHANICAL PROPERTIES

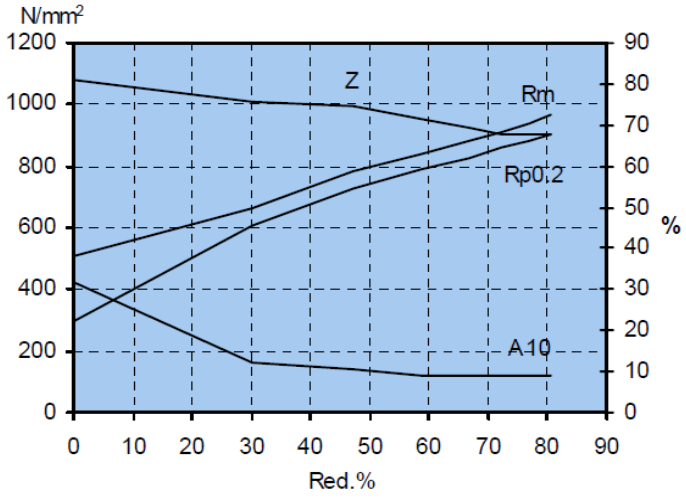
Condition: Annealed

Proof strength	**Rp0.2**	min.200	N / mm^2
Tensile strength	**Rm**	400-500	N / mm^2
Elongation	**A10**	min.25	%

THERMAL CONDUCTIVITY

20 °C	25.7	W / mK
100 °C	25.8	W / mK
300 °C	26.4	W / mK
400 °C	26.9	W / mK
500 °C	27.5	W / mK
800 °C	30.7	W / mK

DEFORMATION GRAPH



THERMAL EXPANSION

Thermal expansion per °C x 10-6 from 20°C to:

100 °C	11.0
200 °C	11.3
300 °C	11.5
400 °C	12.0
500 °C	12.0
650 °C	12.8

RESISTIVITY

20 °C	600	µΩmm