FAGERSTA Stainless

R240.10

EN: **1.4113**
Type: **434**

R240.10 is a nonhardenable ferritic stainless steel alloyed with approx. 1.0% Mo, designed especially for the automotive trim market to resist atmospheric corrosion in winter road conditions and dust-laying compounds. R240.10 has corrosion resistance similar to that of type 304 steel in many environments and is heat resistant up to approx. 870°C (1600°F) for intermittent service and up to approx. 820°C (1510°F) for continuous service. The addition of Mo improves the corrosion resistance to pitting corrosion. This results in R240.10 having less sensitivity than grade R250.11 (Type 430). Typical applications today are steel wool used in automotive exhaust systems like catalytic converters and muffer packing, filter products and furnace parts.

CHEMICAL COMPOSITION (Nominal) %

C	Si	Mn	Cr	Ni	Mo	N		
0.050	0.40	0.45	16.4	<0.50	1.05	<0.060		

PRE: 20 (PRE = Cr + 3.1 x Mo + 25 x N)

Comments:

THERMAL TREATMENT

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

PHYSICAL PROPERTIES

Condition: Annealed

Density	7.7	g / cm^3
Moduls of elasticity, E	220 000	GPa
Specific heat 0-100°C	460	J / kg°C

MAX. OPERATING TEMPERATURE

Oxidizing atm. Intermitt./cont.	870 / 820	°C
	1600 / 1510	°F
Scaling temp. in air		°C
		°F

TYPICAL MECHANICAL PROPERTIES

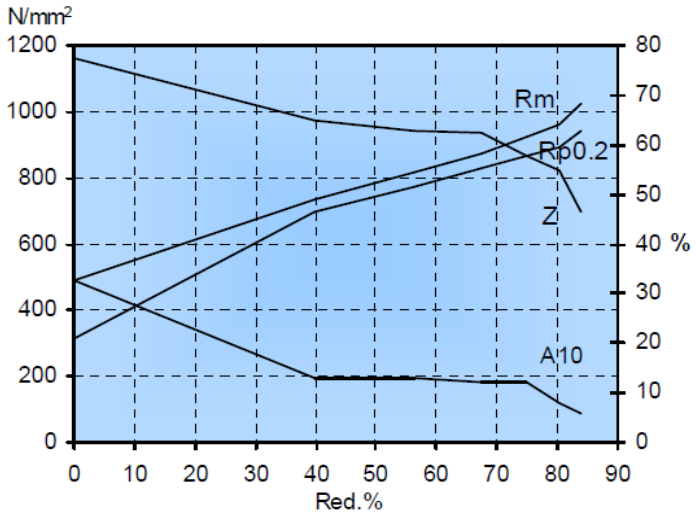
Condition: Annealed

Proof strength	**Rp0.2**	min.250	N / mm^2
Tensile strength	**Rm**	450-520	N / mm^2
Elongation	**A10**	min.25	%

THERMAL CONDUCTIVITY

100 °C	23.9	W / mK
500 °C	26.0	W / mK

DEFORMATION GRAPH



THERMAL EXPANSION

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

100 °C	10.0
200 °C	10.5
300 °C	10.5
400 °C	10.5
500 °C	11.0
650 °C	11.9

RESISTIVITY

20 °C	720	µΩmm
100 °C	780	µΩmm
200 °C	860	µΩmm
400 °C	1000	µΩmm
600 °C	1110	µΩmm
800 °C	1210	µΩmm