MARCEGAGLIA
FAGERSTA STAINLESS

R816.10

EN: 23 12 2 L
AWS: ER309LMo (Mod)

R816.10 (EN 23 12 2 L) is a Mo-alloyed grade of the 309LMo-type. It was primarily designed as welding wire for surfacing low-alloyed steels and for joining stainless and low-alloy steels. When used for surfacing welding, the composition obtained is more or less equal to that of Type 316. This type of alloy may be sensitive to sigma-phase and embrittlement in temp. range 550-950°C (1020-1740°F).

CHEMICAL COMPOSITION (Nominal) %

C	Si	Mn	Cr	Ni	Mo	N		
<0.015	0.35	1.50	21.5	15.0	2.7	0.060		

PRE: 31 (PRE = Cr + 3.1 x Mo + 25 x N)
Comments: Ferrite: 11 FN DeLong / 9 FN WRC-92

THERMAL TREATMENT

Annealing temperature	1040-1100	°C
	1900-2010	°F

PHYSICAL PROPERTIES

Condition: Annealed

Density	7.9	g / cm^3
Moduls of elasticity, E	200	GPa
Specific heat 0-100°C	500	J / kg°C

MAX. OPERATING TEMPERATURE

Operating temp. in air	350	°C
	662	°F
Scaling temp. in air	950	°C
	1740	°F

TYPICAL MECHANICAL PROPERTIES

Condition: Annealed

Proof strength	**Rp0.2**	min. 200	N / mm^2
Tensile strength	**Rm**	500-600	N / mm^2
Elongation	**A10**	min. 40	%

THERMAL EXPANSION

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

100 °C	16.0
200 °C	16.5
400 °C	17.5
800 °C	18.5
1000 °C	19.5

DEFORMATION GRAPH