

AUSTENITIC STEELS

Available Product Variants

Plates

Open Die Forgings

Product Description

Components with required non magnetic properties and resistance to seawater, e.g. for ship building.

Process Melting

VID

Properties

Non-magnetic austenitic steel. Resistance to seawater and intergranular corrosion. Weldable.

Applications

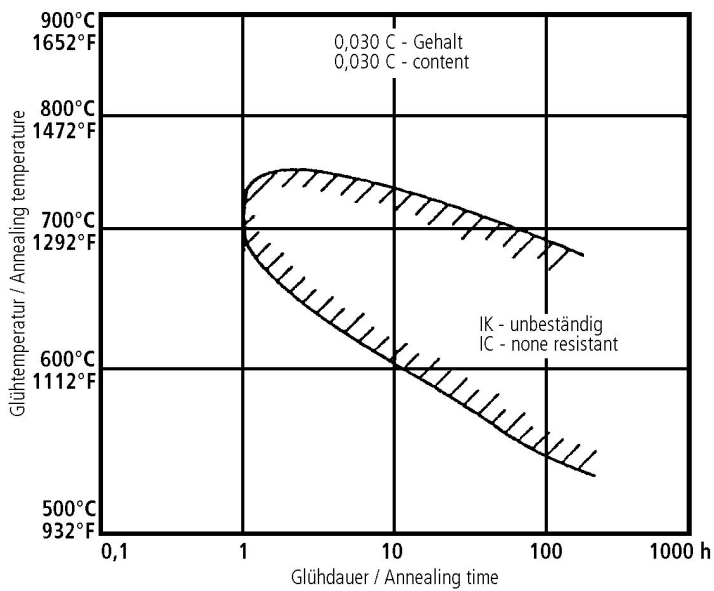
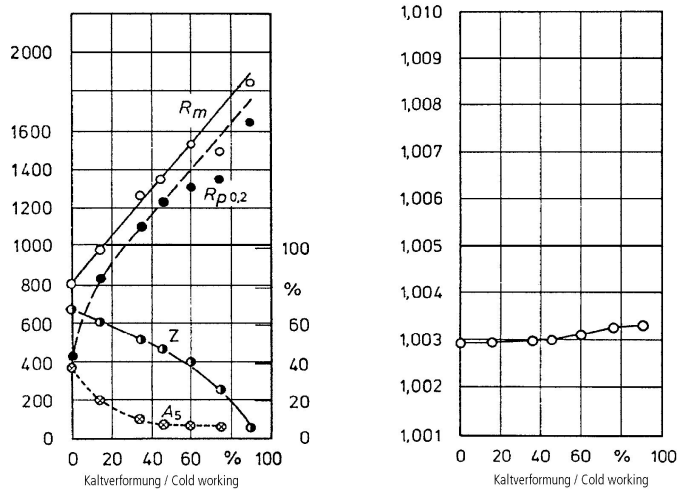
- > Drilling Tools and Components
- > Well Completion Tools
- > Other Components
- > Well Logging Tools
- > Other Power Generation Components

Technical data

Material designation		Standards	
1.3964	SEL	A182-14b	
S20910	UNS	A193	
X2CrNiMoNnb21-16-5-3	EN	A194	
XM-19	AISI	A213	
		A240	
		A249	
		A269	
		A276	
		A312	
		A314	
		A358	ASTM
		A403	
		A479	
		A480	
		A484	
		A580	
		A813	
		A814	
		A943 (14)	
		A959	
		A965	
		A1012	

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo	Ni	Nb	N
≤ 0,03	0.4	4.6	20.5	3.2	15.5	0.13	0.3



Physical Properties

Density	7.9 0.29	[kg/dm ³ lb/in ³]
Thermal conductivity	14 8.09	[W/(m.K) BTU/ft h °F]
Specific heat	460 109.8691	[kJ/kg K BTU/lb °F]
Spec. electrical resistance	0.8 3.78	[Ohm.mm ² /m 10 ⁻⁴ Ohm.inch ² /ft]

Thermal Expansions between 20°C | 68°F and ...

Temperature (°C °F)	-196 -320.8	-100 -148	100 212	200 392	300 572	400 752	500 932	
Thermal expansion (10 ⁻⁶ m/(m.K) 10 ⁻⁶ inch/inch.°F)	12 6.7	13.6 7.6	14.7 8.2	15.7 8.7	17 9.4	17.5 9.7	17.8 9.9	18.2 10.1

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.