

HEAT RESISTING STEELS

Available Product Variants

Plates

Product Description

Heat treatment shops, Furnace and boiler construction, Glass, porcelain, enamel, cement and ceramic industries, Mechanical engineering, Petroleum industry

Properties

Heat resisting austenitic steel. Superior high temperature strength and excellent toughness. Heat resistance in air up to 1100°C. Good resistance in oxidizing, nitrogenous and low oxygen gases. Medium resistance in sulphurous, oxidizing gases but sensitive to the action of reducing sulphurous gases. Embrittlement only occurs after prolonged exposure in the temperature range of 650 to 900°C. Therefore in the case continuous working temperatures more than 950°C are recommended.

Applications

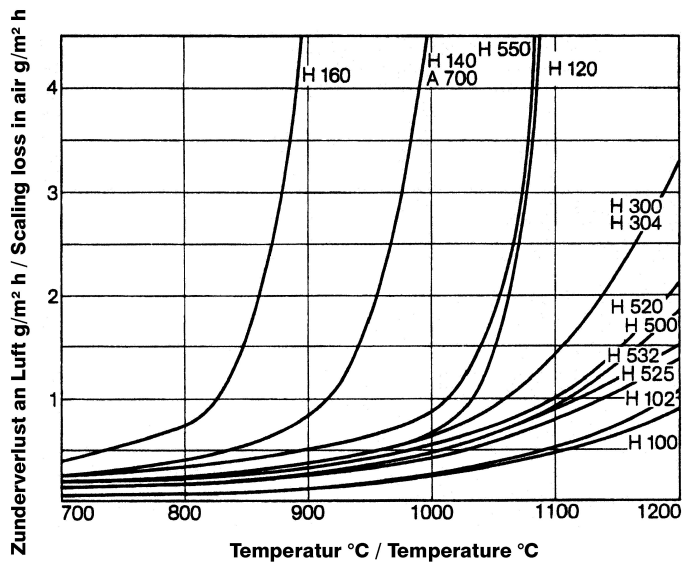
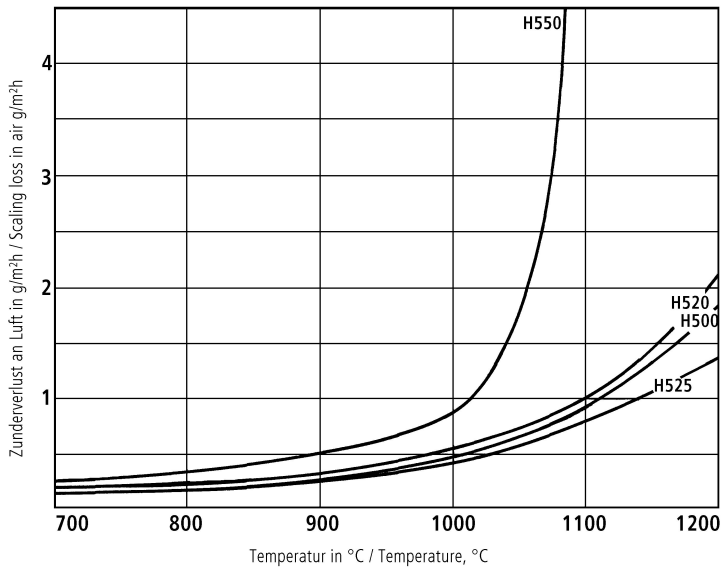
- > Comp. for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > Distributors for Component Applications
- > Flowlines & Connectors
- > General Components for Mechanical Engineering
- > Other Components
- > Rolls
- > Tubular Products, Flanges, Fittings
- > Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- > Comp. for Industrial Gas Compressors
- > Distributors or producers of standard parts without knowledge of final applications
- > Food processing Industry
- > Mechanical Engineering
- > Other Oil and Gas + CPI comps.
- > Shafts
- > Well Completion Tools
- > CPI (incl. LNG, Urea)
- > Drilling Tools and Components
- > Forging Applications
- > Oil & Gas
- > Other Power Generation Components
- > Steel Industry
- > Well Logging Tools

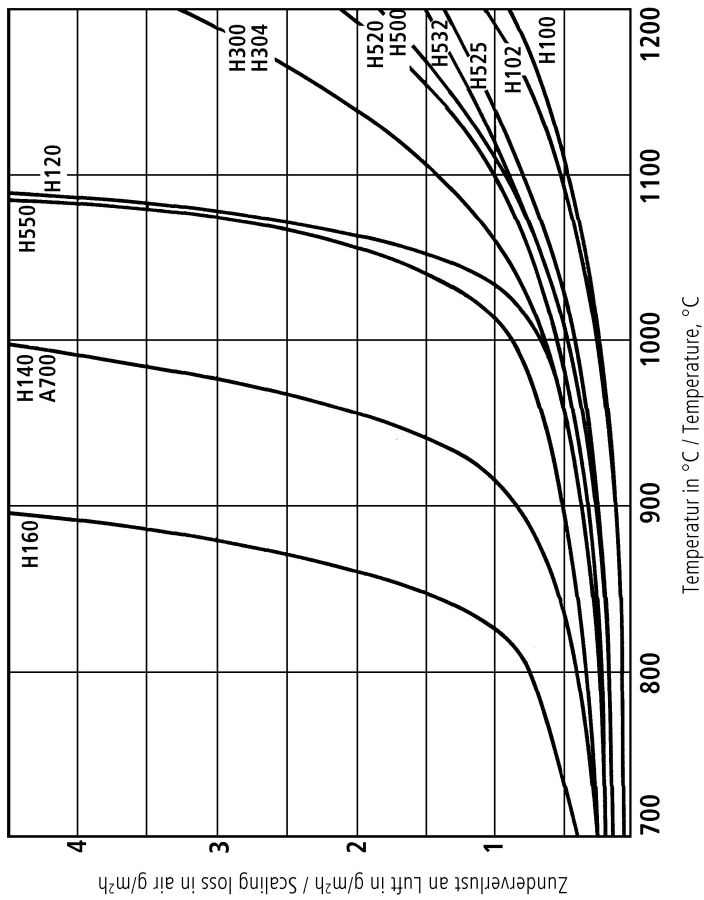
Technical data

Material designation	
1.4876	SEL
N08800	UNS
N08810	
N08811	
X10NiCrAlTi32-21	EN
NCF 800 HTF	JIS
NCF 800 TF	
NCF 800	
NCF 800 TP	
NCF 800 TB	

Chemical composition (wt. %)

C	Si	Mn	Cr	Ni	Ti	Al
0.07	0.35	0.75	20.8	32	0.3	0.3





Physical Properties

Density	8 0.29	[kg/dm ³ lb/in ³]
Thermal conductivity	12 6.93	[W/(m.K) BTU/ft h °F]
Specific heat	550 131.3652	[kJ/kg K BTU/lb °F]
Spec. electrical resistance	1 4.73	[Ohm.mm ² /m 10 ⁻⁴ Ohm.inch ² /ft]
Modulus of elasticity	198 28.72	[10 ³ N/mm ² 10 ³ ksi]

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

Temperature (°C °F)	200 392	400 752	600 1,112	800 1,472	1,000 1,832
Thermal expansion (10^{-6} m/(m.K) 10^{-6} inch/inch.°F)	15 8.3	16 8.9	17 9.4	17.5 9.7	18.5 10.3

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.