

DATENBLATT

PH 13-8 MO | 1.4534

Major specifications

1.4534.4 | 1.4534.9 | UNS S13800 | AMS 5629

Product forms

Round bars in 1.4534.4, Condition H1050, solution annealed and hardened

Round bars in 1.4534.9, Condition A, solution annealed

The current Stock Range can be found on www.sd-metals.com. Further dimensions available upon request.

Key features

PH 13-8 Mo is a stainless steel with approximately 13% chromium and 8% nickel content that has good resistance to corrosion in general as well as to stress corrosion cracking. PH 13-8 Mo offers better mechanical properties in demanding environmental conditions in comparison to other materials based on iron. Precise control of the microstructure is achieved through vacuum melting and remelting. Medium to high strength can be achieved through precipitation hardening aging treatments.

Areas of application

Airframe structural components, water jet cutting equipment, injection molding equipment, motorsport components, fasteners, valves, and fittings.

CHARACTERISTIC

Chemical composition limits in %

Fe	Rest
Cr	12,25 - 13,25
Ni	7,50 - 8,50
Mo	2,00 - 2,50
Al	0,90 - 1,35
Mn	max. 0,20
N	max. 0,10
Si	max. 0,10
C	max. 0,05
P	max. 0,01

Physical constants and thermal properties

Density	7,76 g/cm ³
Melting point	1404 °C
Thermal conductivity at 20°C	12,8 W/m • °C
Elongation coefficient at 20-100°C	13 µm/m • °C

Typical mechanical properties (room temperature)

H950	
Yield strength	min. 1413 MPa
Tensile strength	min. 1517 MPa
Elongation	min. 10 %
H1000	
Yield strength	min. 1310 MPa
Tensile strength	min. 1413 MPa
Elongation	min. 10 %
H1050	
Yield strength	min. 1138 MPa
Tensile strength	min. 1207 MPa
Elongation	min. 12 %

All information is subject to change without notice.
The properties correspond to the material in the heading. They may vary for other specifications. Please contact us for more details.