CONCEPTLASER

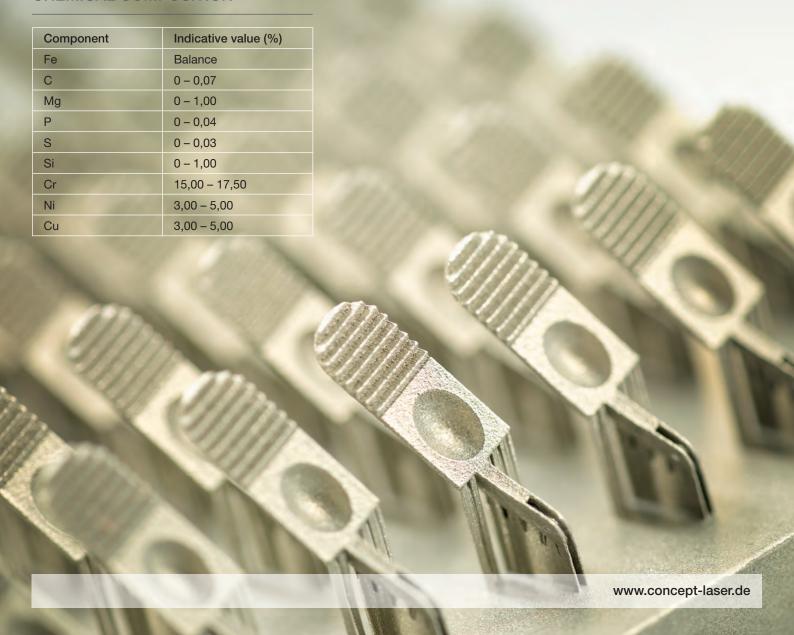
CL 92PH Precipitation hardening stainless steel

Precipitation hardening stainless steel powder (17-4 PH), chemical composition according to ASTM A564 / A564M – 13 UNS S17400

CL 92PH is a precipitation hardening stainless steel for the production of functional parts or medical instruments.

26 **Fe** 55,847

CHEMICAL COMPOSITION



RANGE OF APPLICATION

The material is used for manufacturing acid- and corrosion resistant prototypes, unique or series production parts in the following fields: Plant engineering, automotive industry, medical technology, jewellery and components for moulds.

TECHNICAL DATA AFTER RECOMMENDED HEAT TREATMENT

Yield point R _{p 0,2} 1	1170 N/mm²
Tensile Strength R _m ¹	1310 N/mm ²
Elongation A ¹	10 %
Thermal conductivity λ 2	16 W/mK
Hardness ¹	388 HB

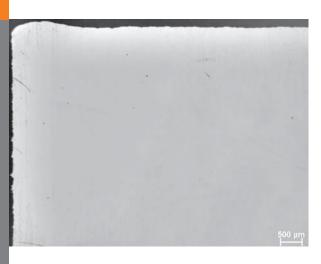
¹ Preliminary, specification according to ASTM A564/A564M – 13 UNS S17400

CL 92PH

Precipitation hardening stainless steel

MICROSECTION

Test piece (x 20 magnification)



Test piece (x 100 magnification)



HEAT TREATMENT¹

CL 92PH is solution annealed at temperatures of 1025 – 1055°C, followed by a rapid cooling down in water, air or oil. Heat up to 480°C and maintain temperature for 1 hour. Subsequently allow the component cooling down at ambient atmosphere.

Concept Laser GmbH

An der Zeil 8 D 96215 Lichtenfels

Sales Department

info@concept-laser.de T: +49 (0) 95 71. 1679 200 F: +49 (0) 95 71. 1679 299

MICROSTRUCTURE

Components made from precipitation hardening stainless steel CL 92PH display a homogeneous, dense structure after they are manufactured by means of the metal laser melting process LaserCUSING®.



² Preliminary, specification according to the material manufacturer's data sheet

¹ Preliminary, specification according to ASTM A564/A564M – 13 UNS S17400