Data Sheet

Steel 1.7218 / 25CrMo4

Alternative Designations

SCM420 (JIS) | SAE4130 (AISI) | 25CD4 (AFNOR) | 708A25 (BS) | 25CrMo4 (UNI)

Key Features

Durable • Excellent strength and resilience

Description

25CrMo4 is a grade of steel that is specifically designed for use in the manufacture of components and parts that are subject to high levels of stress. This particular grade of steel is known for its exceptional strength and resilience, making it an ideal choice for use in applications where durability is key. It is generally used in the manufacture of gears, shafts, valves, and other highly stressed components.

Mechanical Properties

Yield strength	345 – 700 MPa
Tensile strength	600 – 1100 MPa
Elongation at break	12 – 16%
Hardness	212 – 255
Module of elasticity	210 GPa

Physical Properties

Density	7.75 g/cm³
Electrical conductivity	5.26 m/Ω · mm²
Thermal conductivity	49 W/m · K
Specific heat capacity	435 J/kg · K

Chemical Composition

Al	-	N	-
Bi	-	Nb	-
C	0.22 – 0.29%	Ni	-
Cd	-	O	-
Co	-	P	0.035%
Cr	0.9 – 1.2%	Pb	-
Cu	-	S	0.04%
Fe	-	Si	0.4%
H	-	Sn	-
Mg	-	Ti	-
Mn	0.6 – 0.9%	V	-
Mo	0.15 – 0.30%	Zn	-

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.