



SIHARD 2510 Steel

Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIHARD 2510	OW4	1.2510	100MnCrW4	95MnWCr5	O1

Chemical Composition (in weight %)

C	Si	Mn	Cr	Mo	Ni	V	W	Others
0.95	0.25	1.20	0.48	-	-	0.13	0.55	-

Description

This alloy is one of the cold work, oil hardening type tool steels. It is relatively inexpensive containing small amounts of manganese, tungsten and chromium. Hardening by oil quench minimizes distortion and cracking.

Applications

Applications include short run tooling for blanking dies, cold forming dies and cutting tools operating at ambient temperature. For working tools, cutting blades, sizing and stamping tools.

Physical properties (average values) at ambient temperature

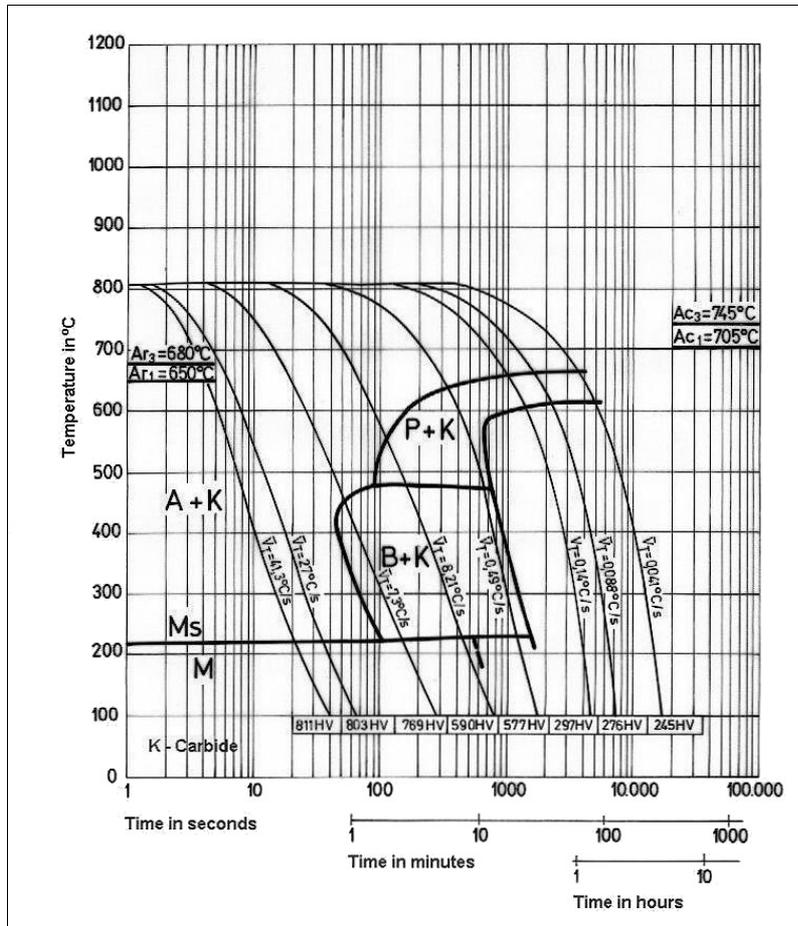
Density [g/cm³]: 7.85

Thermal conductivity [W/m.K]: 30.0

Coefficient of Linear Thermal Expansion 10⁻⁶ °C⁻¹

20-100°C	20-200°C	20-300°C	20-400°C	20-500°C	20-600°C	20-700°C
12.1	12.9	13.3	14.0	14.4	14.8	14.9

Continuous Cooling Transformation (CCT) Diagram



Soft Annealing

Heat to 740-770°C, cool slowly in furnace. This will produce a maximum Brinell hardness of 230.

Hardening

Harden from a temperature of 780-820°C followed by oil, warm bath (180-220°C) quenching. Hardness after quenching is 64 HRC.

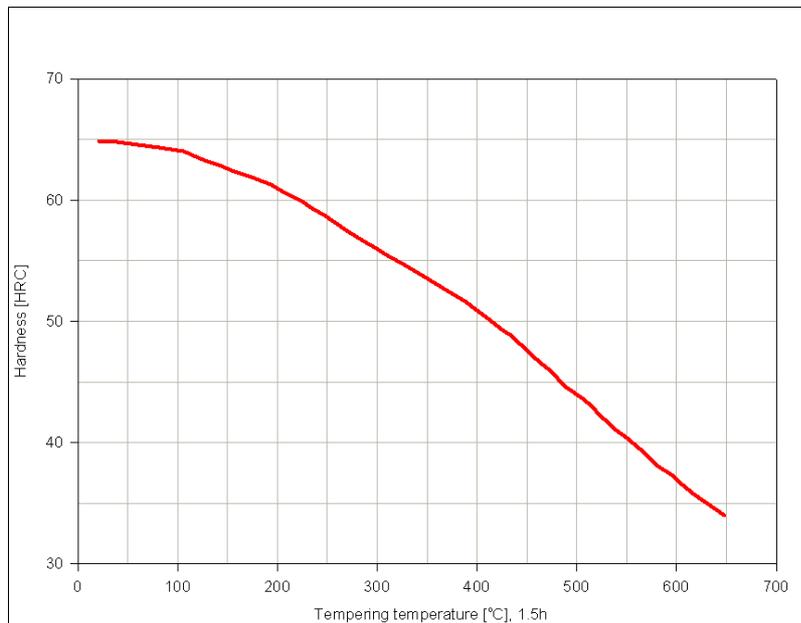
Tempering

Tempering temperature: See the data below.

Tempering Temperature (°C) vs. Hardness (HRC)

100°C	200°C	300°C	400°C	500°C	600°C	650°C
64	61	56	51	44	37	34

Tempering Diagram



Forging

Hot forming temperature: 1037-875°C.

Machinability

Machinability of this alloy is very good. It has a rating of 90% that of the W group water hardening low alloy tool steels.

Corrosion Resistance

This is a relatively simple steel alloy and does not resist ordinary corrosion. It will rust unless protected.

Welding

This alloy is weldable by standard means. Consult the alloy supplier for details and procedures.

Forms manufactured: Please see the [Dimensional Sales Program](#).

Disclaimer

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