



SIHARD K140 Steel

Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIHARD K140	OH237	-	-	-	S5

Chemical Composition (in weight %)

C	Si	Mn	Cr	Mo	Ni	V	W	Others
0.57	2.00	0.80	0.30	0.78	-	0.25	-	-

Description

Cold work tool steel. Shock resisting tool steel with good toughness at high strength levels.

Applications

Different cutting parts, chisels, rivet sets, punches, driver bits.

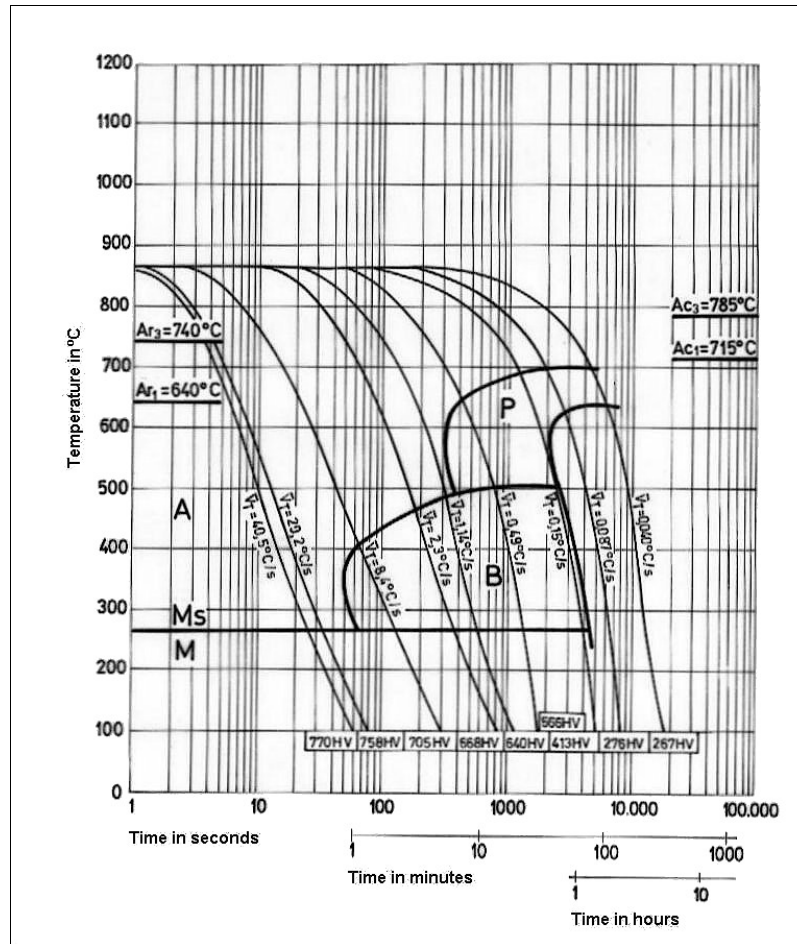
Physical properties (average values) at ambient temperature

Density [g/cm³]: 7.74

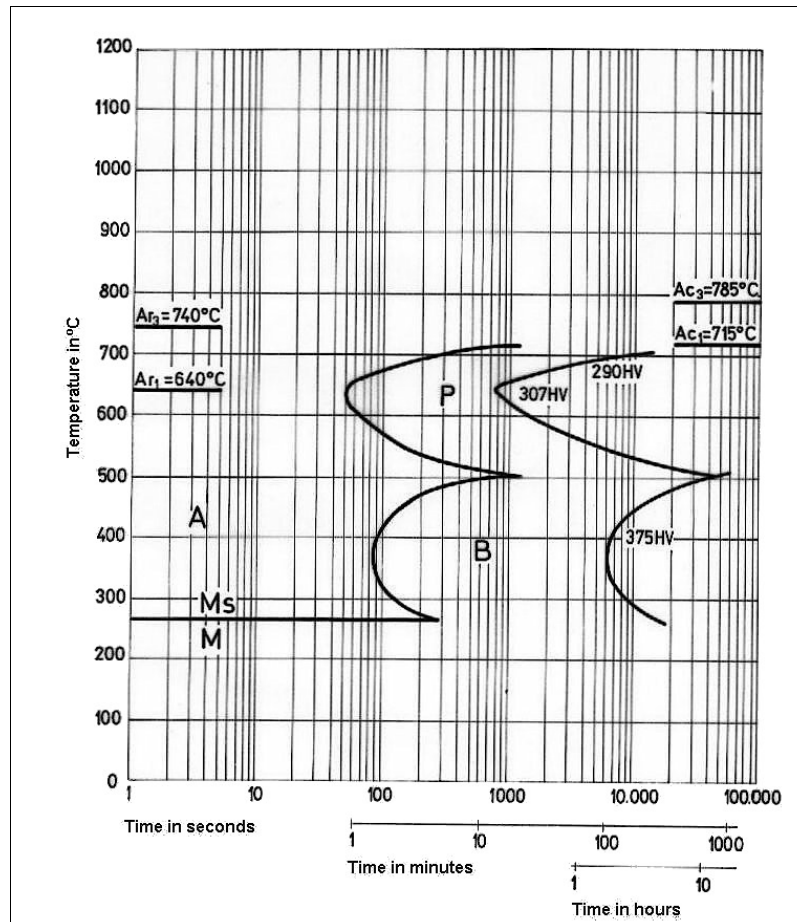
Coefficient of Linear Thermal Expansion 10⁻⁶ °C⁻¹

20-100°C	20-200°C	20-300°C	20-400°C	20-500°C	20-600°C	20-700°C
13.1	13.7	14.4	14.4	14.7	14.9	15.0

Continuous Cooling Transformation (CCT) Diagram



Time-Temperature Transformation (TTT) Diagram



Soft Annealing

Heat to 770-800°C, cool slowly in furnace. This will produce a maximum Brinell hardness of 229.

Stress Relieving

Stress relieving to remove machining stresses should be carried out by heating to 650°C, holding for one hour at heat, followed by air cooling. This operation is performed to reduce distortion during heat treatment.

Hardening

Harden from a temperature of 880-920°C followed by oil quenching. Hardness after quenching is 63 HRC.

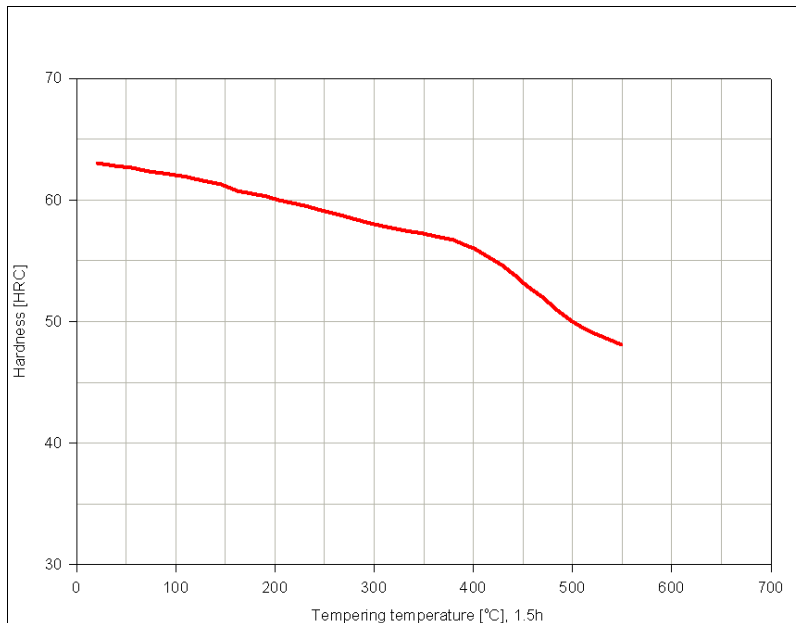
Tempering

Tempering temperature: See the data below.

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

100°C	200°C	300°C	400°C	500°C	550°C
62	60	58	56	50	48

Tempering Diagram



Forging

Hot forming temperature: 1050-900°C.

Machinability

No data.

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

Disclaimer

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