



SIMOLD 2550 Steel

Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIMOLD 2550	OSIKRO4	1.2550	60WCrV7 †	60WCrV8	S1

Chemical Composition (in weight %)

C	Si	Mn	Cr	Mo	Ni	V	W	Others
0.60	0.85	0.30	1.05	-	-	0.15	1.45	-

Description

This steel is one of the shock resisting tool steel types with very good toughness in combination with high hardenability. Impact-resistant, tungsten-alloyed cold-work tool.

Applications

For cutting tools (dies, punchers) for plate, woodworking tools, blanking dies for cutting sheet metals up to 12 mm thickness, trimming and splitting dies, cold piercing punches, performing punches, shear blades, chipping knives, pneumatic chisels, coining tools, cold shear blades, ejectors.

Physical properties (average values) at ambient temperature

Modulus of elasticity [$10^3 \times \text{N/mm}^2$]: 190-210

Density [g/cm^3]: 7.93

Thermal conductivity [W/m.K]: 25.0

Electric resistivity [$\text{Ohm mm}^2/\text{m}$]: 0.30

Specific heat capacity [J/g.K]: 0.46

Coefficient of Linear Thermal Expansion $10^{-6} \text{ }^\circ\text{C}^{-1}$

20-100°C	20-200°C	20-300°C	20-400°C	20-500°C
11.0	12.5	13.0	13.5	14.9

Soft Annealing

Heat to 710-750°C, cool slowly in furnace. This will produce a maximum Brinell hardness of 225.

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 860-900°C followed by oil or hot bath (180-220°C) quenching. Hardness after quenching is 60 HRC.

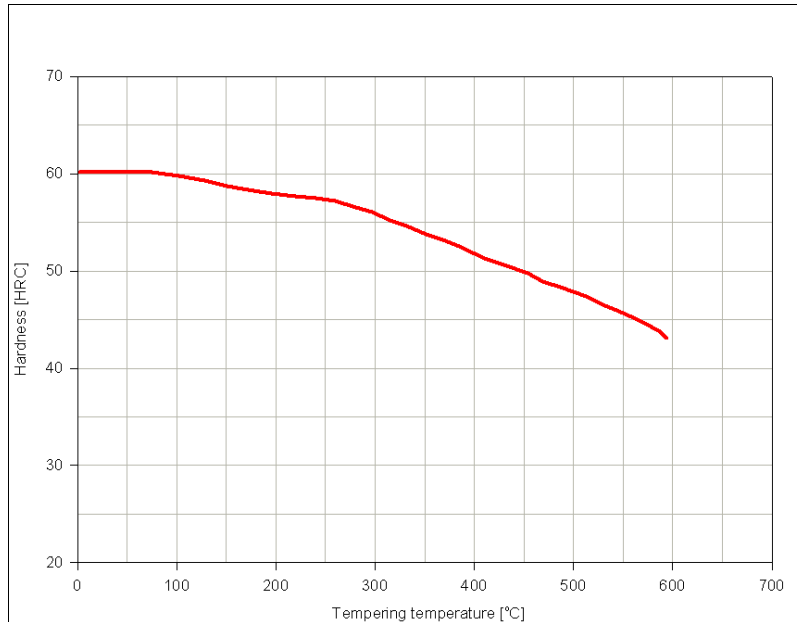
Tempering

Tempering temperature: See the data below.

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

100°C	200°C	300°C	400°C	500°C	600°C
60	58	56	52	48	43

Tempering Diagram



Forging

Hot forming temperature: 1050-900°C.

Machinability

No data.

Corrosion Resistance

Corrosion resistance of this alloy is better than that of plain carbon steels. However it will rust unless given protective treatment.

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

Disclaimer

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