



SIQUAL 7218 Steel

Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIQUAL 7218	VCMO125	1.7218	(G25CrMo4)	GS-25CrMo4	4130

Chemical Composition (in weight %)

C	Si	Mn	Cr	Mo	Ni	V	W	Others
0.25	max. 0.40	0.75	1.05	0.23	-	-	-	-

Description

Structural alloyed carbon steel.

Applications

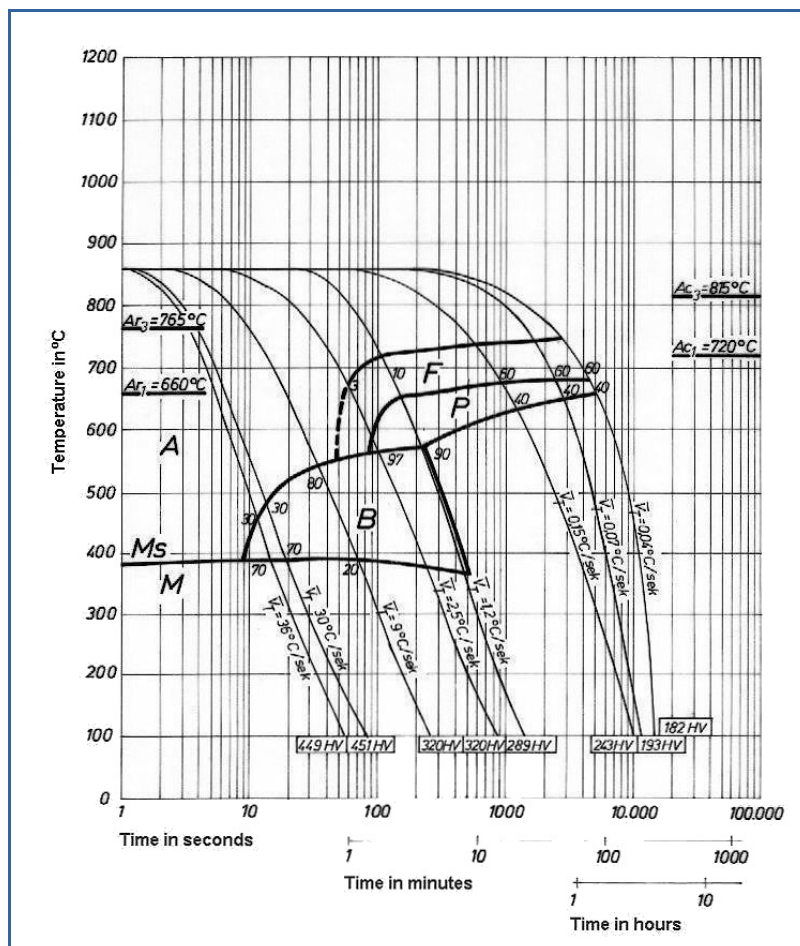
Statically and dynamically stressed components for vehicles, engines and machines - axles, turbine components, chains, forgings, etc.

Physical properties (average values) at ambient temperature

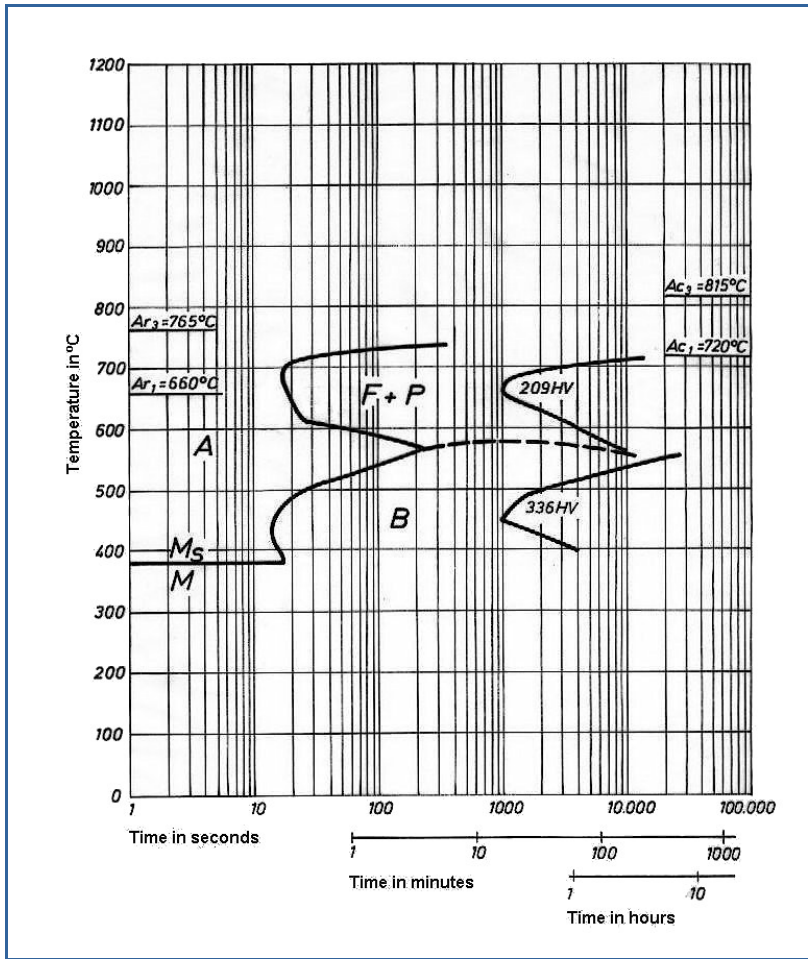
Modulus of elasticity [$10^3 \times \text{N/mm}^2$]: 210

Density [g/cm^3]: 7.86

Continuous Cooling Transformation (CCT) Diagram



Time-Temperature Transformation (TTT) Diagram



Soft Annealing

Heat to 680-720°C, cool slowly. This will produce a maximum Brinell hardness of 212.

Normalizing

Temperature: 840-900°C.

Hardening

Harden from a temperature of 840-870, 850-880°C followed by water or oil quenching.

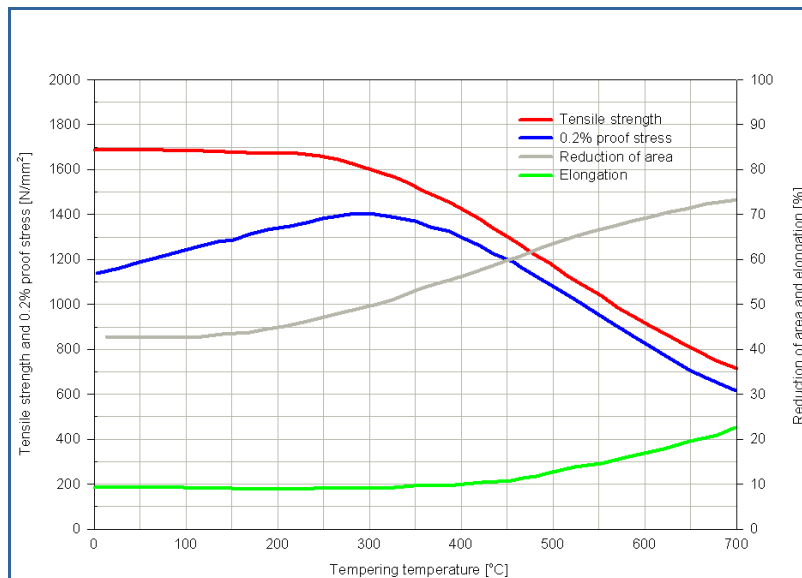
Tempering

Tempering temperature: 540-680°C.

Mechanical Properties in Hardening and Tempering Condition

Diameter (mm)	0.2 % proof stress (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Reduction of area (%)	Notch impact energy (ISO-V) (J)
up to 16	700	900-1100	12	50	50
17-40	600	800-950	14	55	55
41-100	450	700-850	15	60	55
101-160	400	650-800	16	60	55

Diagram Tempering Temperature - Mechanical Properties



Forging

Hot forming temperature: 1050-850°C.

Machinability

No data.

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

Disclaimer

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