



## SIQUAL 7035 Steel

### Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIQUAL 7035	VC140	1.7035	-	41Cr4	5140

### Chemical Composition (in weight %)

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

### Description

Structural alloyed carbon steel.

### Applications

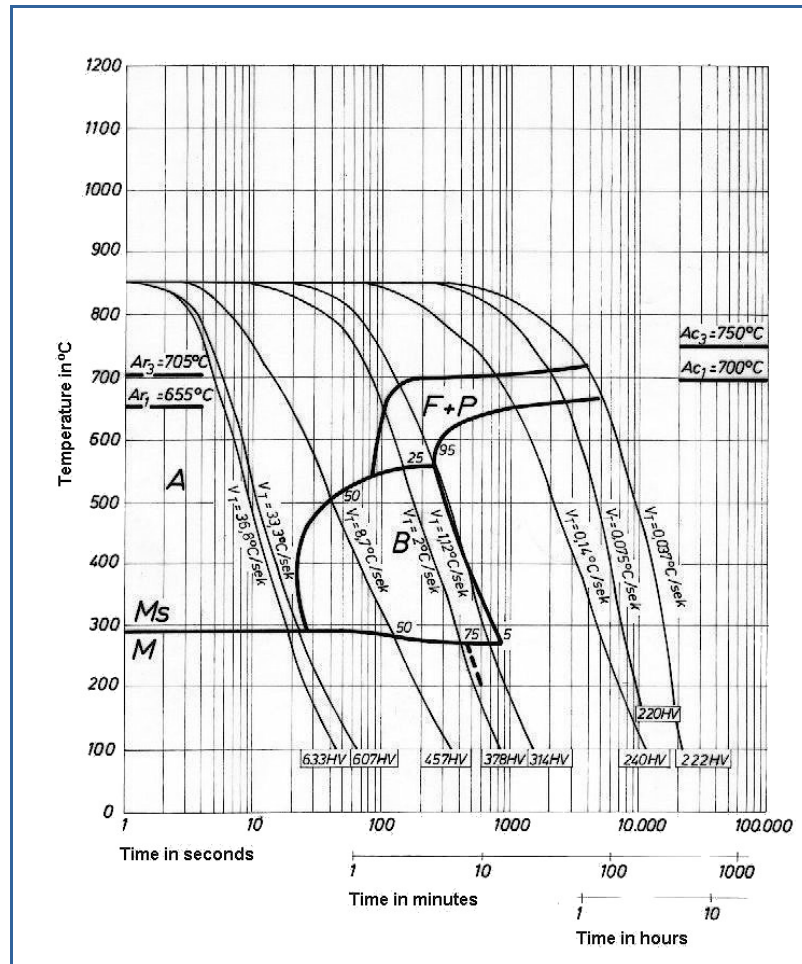
Low and moderately stressed parts for vehicles, engines and machines where hard, wear resisting surface is needed. Hardness as surface hardened about 54 HRC.

### Physical properties (average values) at ambient temperature

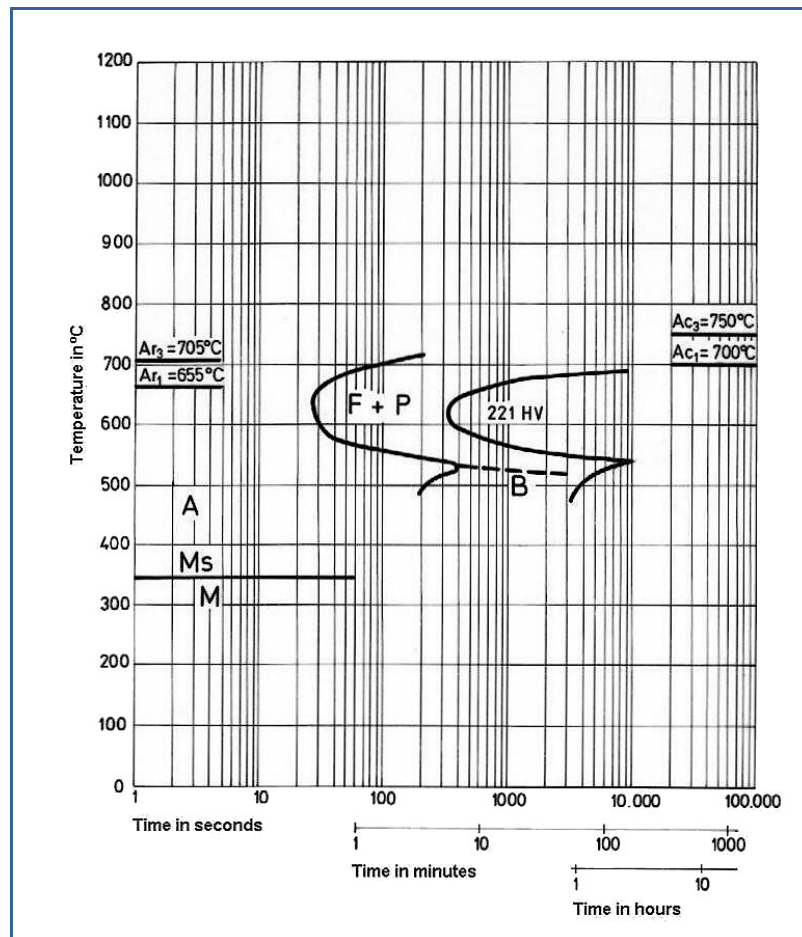
Modulus of elasticity [ $10^3 \times \text{N/mm}^2$ ]: 210

Density [ $\text{g/cm}^3$ ]: 7.85

## 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 241.

### Normalizing

Temperature: 840-880°C.

### Hardening

Harden from a temperature of 820-850, 830-860°C followed by water or oil quenching.

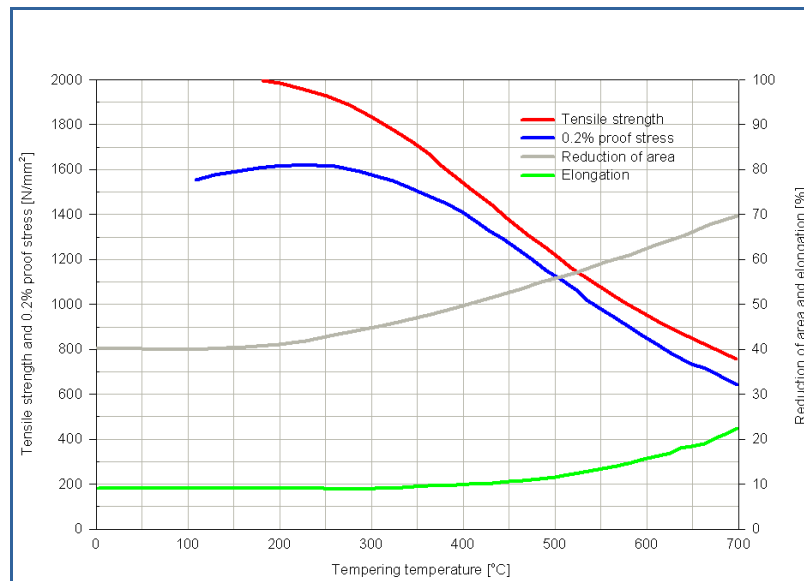
### Tempering

Tempering temperature: 540-680°C.

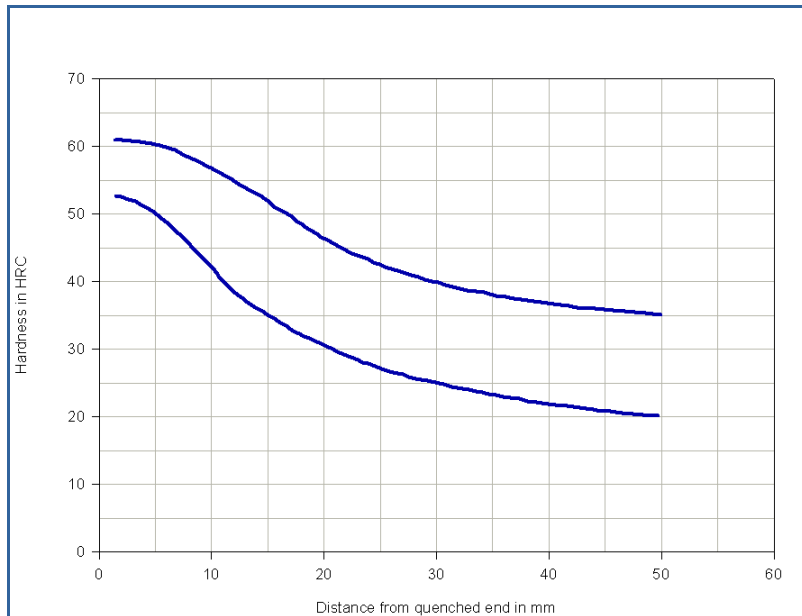
### Mechanical Properties in Hardening and Tempering Condition

Diameter (mm)	0.2 % proof stress (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Reduction of area (%)	Notch impact energy (ISO-V) (J)
up to 16	800	1100-1200	10	30	35
17-40	660	900-1100	12	35	40
41-100	560	800-950	14	40	40

### Diagram Tempering Temperature - Mechanical Properties



## Hardenability Diagram



### Forging

Hot forming temperature: 1050-850°C.

### Machinability

No data.

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

### Disclaimer

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