



SIQUAL 6773 Steel

Designation by Standards

Brand Name	Ravne	Mat. No.	DIN	EN	AISI/SAE
SIQUAL 6773	35NCD16	1.6773	-	36NiCrMo16	-

Chemical Composition (in weight %)

C	Si	Mn	Cr	Mo	Ni	V	W	Others
0.35	max. 0.40	0.45	1.80	0.35	3.85	-	-	-

Description

Structural steel with high strength.

Applications

Structural steel of a broad application range for wear resistant components, exposed to high permanent stress. Due to good hardenability, this steel grade is suitable for larger cross sections, too. It can be used for tools (e.g., cutters) with a hardness of 45-50 HRC.

Physical properties (average values) at ambient temperature

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

Density [g/cm^3]: 7.80

Soft Annealing

Heat to 650-680°C, cool slowly. This will produce a maximum Brinell hardness of 269.

Normalizing

Temperature: 850-880°C.

Hardening

Harden from a temperature of 835-865°C, 855-885°C followed by oil or quenching.

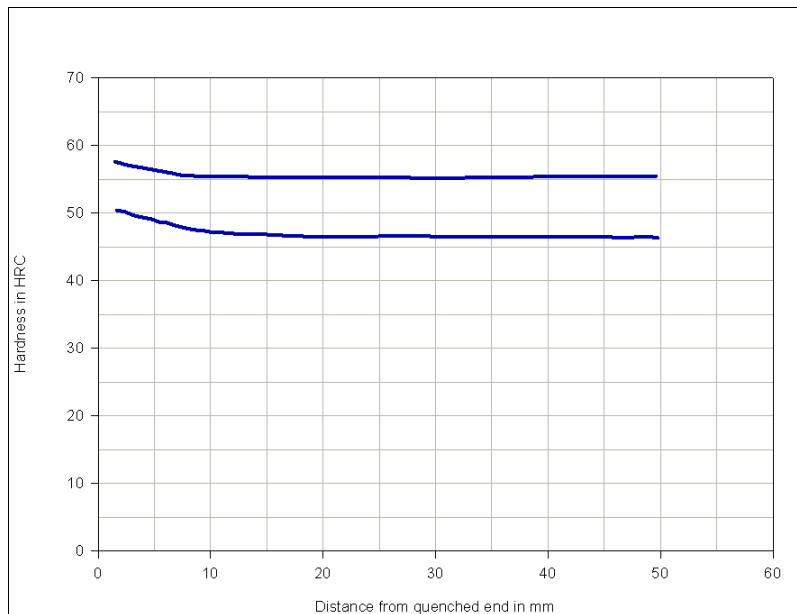
Tempering

Tempering temperature: 550-650°C.

Mechanical Properties in Quenched and Tempered Condition

Diameter in mm	0.2 proof stress (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Reduction (%)	Impact energy (J)
Up to 16	1050	1250-1450	9	40	30
17-40	1050	1250-1450	9	40	30
41-100	900	1100-1300	10	45	35
101-160	800	1000-1200	11	50	45
161-250	800	1000-1200	11	50	45

Hardenability Diagram



Forging

Hot forming temperature: 1050-850°C.

Machinability

No data.

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

Disclaimer

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make his own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. There is no representation that the recipient of this literature will receive updated editions as they become available.

Unless otherwise specified, registered trademarks are property of SIJ Metal Ravne company. Copyright 2016 by SIJ Metal Ravne d.o.o. All rights reserved. Contact our [Sales Office](#) for more information.