



AISI 4340 EN24 DIN 40NiCrMo84

EN10277-5

C 0.40 Si 0.30 Mn 0.50 S 0.04 Cr 1.10

Steel properties

Standard high-speed steel grade. Its well-balanced alloy composition forms the basis of its high toughness and good cutting edge retention, rendering it suitable for a large variety of applications.

Standards

AISI 4340 AFNOR-35NCD6

Physical properties

Thermal conductivity °C	20	350	700
W (m • K)	40.5	32.5	32.0

Applications

For all metal-cutting tools for roughing or finishing such as twist drills, diverse milling cutters, thread dies, broaches, reamers, countersinks, thread chasers, circular saw segments, shaping tools and woodworking tools. Also highly suitable for cold-forming tools such as cold extrusion rams and dies, as well as cutting and precision cutting tools, plastic moulds with elevated wear resistance and screws.

Heat treatment

Soft annealing °C	650-700	Cooling slowly	Hardness HB max. 280
Stress-relief annealing °C	600-650	Cooling Furnace	
1st pre-heating °C	up to approx. 400 in an air-circulating furnace	2nd and 3rd pre-heating °C	
	a) 780	Hardening °C	1190-1230
	b) 780 and 1000	Quenching	a) Saltbath, 520°C b) Air
		Tempering °C	at least twice 530-560
		Hardness after tempering HRC	60-62

Tempering Graph

