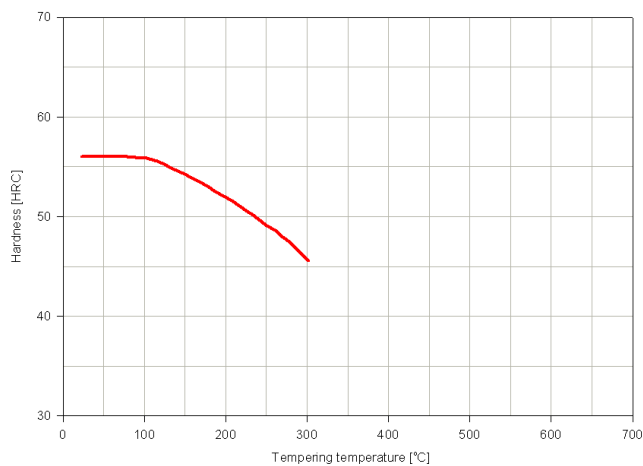


# S50C

Trade Name	Technical Delivery Condition	Normalised Hardness	Typical Chemical Composition Maximum %					
			C	Si	Mn	Cr	Mo	Ni
S50C	Normalised	217 HB	0.47 – 0.55	≤ 0.40	0.60 – 0.90	≤ 0.40	≤ 0.10	≤ 0.40

Werkstoff	DIN standard	AISI	BS	JIS	SIS	UNI
1.1206	CK50	1050		S50C		



Graph 1

### Type of steel and characteristics:

Unalloyed Medium Carbon Steel.

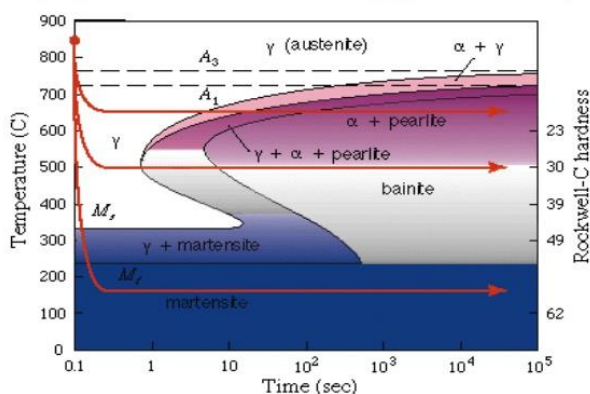
### Applications:

Components with small cross sections, requiring with low tensile strength, as well as heavy forging in normalised condition. For general mechanical and automotive engineering, engine construction, e.g. axles, clutch members, shafts, pressed and blank parts, piston rods and gear racks.

### Heat Treatment:

Hot Forging	1100 - 850°C
Normalizing	830 - 870°C
Annealing	650 - 700°C
Hardening	810 - 850°C water, oil
Hardness obtainable	56 – 63 HRC water quenched
Tempering	Refer Graph 1

(TTT) curve of carbon steel AISI 1050 (Hypoeutectoid steel)



TTT Graph