

### JISG4051 S50C steel plate high carbon steel

S50C steel plate, JISG4051 S50C steel plate, under JISG4051 standard, we can regard S50C steel plate as high carbon steel.

S50C steel plate is one mainly of high carbon steel,for the high strength medium carbon steel,the cold-work plasticity is low,the welding performance,the hardenability are bad,but non-temper brittleness,cutting value still permissible.Generally under the normalizing or quenching,the tempering uses,uses in making the resistance to wear to request high,moves the load and the stock effect not big mechanical job and the spring like forges the gear,the tension bar,the roller,the axis,the agriculture use to excavate the plough-share,the heavy load spindle and so on.

The equivalent standards of S50C steel

S50C JIS G 4051	Comparision of steel grades	
	DIN	1C50
	AISI	1050
	UNI 7846	-
	BS 970	-
	UNE 36011	-
	SAE J 403-AISI	-

Chemical Composition of S50C steel

Grade	C	Si	Mn	P(%) max	S(%) max	Cr(%) max	Ni(%) max	Cu(%) max
S50C	0.47-0.55	0.17-0.37	0.50-0.80	0.035	0.035	0.25	0.25	0.25

Mechanical Properties of S50C steel

Tensile Strength $\sigma_b$ (MPa)	Yield Strength $\sigma_s$ (MPa)	Elon-Gation Ration $\hat{1}'5$ (%)	Reducti on of area Psi(%)	Impact merit AKV (J)	Resilient value AKV(J/c m2)	Degree of hardnes s	Annealed steel	Test Specimen Size (mm)
$\geq 630$	$\geq 375$	$\geq 14$	$\geq 40$	$\geq 31$	$\geq 39$	$\leq 241$ HB	$\leq 207$ HB	25

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