

**SAE J 403-AISI 1042 / 1045 steel plate high carbon steel**

1042 / 1045 steel plate, SAE J 403-AISI 1042 / 1045 steel plate, under SAE J 403-AISI standard, we can regard 1042/1045 steel plate as high carbon steel.

1042/1045 steel plate is one mainly of high carbon steel,SAE J 403-AISI 1042 / 1045 steel plate is under SAE J 403-AISI standard,the material Number of 1042 / 1045 steel plate is 1.0503 and the comparison steel grades of 1042 / 1045 steel is JIS G 4051 S45C,DIN17200 C45,BS970 070M46,EN10083 C45 and UNI 7846 C45 steel.

1042 / 1045 SAE J 403-AISI Number:1.0503	Comparision of steel grades	
	JIS G 4051	S 45 C
	DIN 17200	C 45
	NFA 33-101	AF65-C 45
	UNI 7846	C 45
	BS 970	070 M 46
	EN 10083-2	C 45
	SAE J 403-AISI	1042/1045

Chemical Composition of C45K

Grade	C(%)min-max	Si(%)min-max	Mn(%)min-max	P(%)max	S(%)max	Cr(%)min-max
1042/4015	0.42-0.50	0.15-0.35	0.50-0.80	0.025	0.025	0.20-0.40

Mechanical Properties of C45K

Grade	Condition	Yield Strength R <sup>o</sup> (Mpa)	Tensile Strength Rm (Mpa)	Elongation A5(%)	Hardness HRC	Quenching Temperature (°C)	Bendability	Nominal Thickness,t 1.95mm≤t≤10.0 mm	
								Rolled	Annealed
1042/1045	Rolled	460	750	18	58	820	Min.recommended Bending radius (≤90°)	2.0×t	1.0×t
	Annealed	330	540	30	55	860			
	Water-quenched		2270						
	Oil quenched		1980						

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