

This page is mainly introduced the G2500a Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of G2500a, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Caststeel G2500a

G2500a Standard Number:

ITEM	Standard Number	Descriptions
1	ASTM A 159 (1983)	Automotive gray iron castings

G2500a Chemical composition (mass fraction) (wt.%)

Chemical				Min.(%)				Max.(%)			
C								3.40			
Si				1.60				2.10			
Mn				0.60				0.90			
P								0.15			
S								0.12			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta		
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other		

Brake drums and clutch plates for moderate service requirements, where high carbon iron is desired to minimize heat checking. Lamellar pearlite ferrite if present not to exceed 15%.

G2500a Physical Properties

Tensile strength	115-234	σ_b /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	$Akv \geq$ /J

HBS	123-321	-
HRC	30	-

G2500a Mechanical Properties		
Tensile strength	231-231	σ_b /MPa
Yield Strength	154	$\sigma_{0.2} \geq$ /MPa
Elongation	56	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	235-268	-
HRC	30	-

G2500a Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

G2500a Range of products				
Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

We can produce Caststeel the specifications follows: