

This page is mainly introduced the B 275 GR20A Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of B 275 GR20A, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel B 275 GR20A

B 275 GR20A Standard Number:

ITEM	Standard Number	Descriptions
1	B 275 (2005)	Standard Practice for Codification of Certain Nonferrous Metals and Alloys, Cast and Wrought

B 275 GR20A Chemical composition (mass fraction) (wt.%)

Chemical										Min.(%)					Max.(%)				
C															0.12				
Si															0.30				
Mn															0.80				
Cr															19.00				
Ni															14.00				
Mo																			
Co																			
W																			
Al																			
Cu																			
Ti																			
Fe															remaining				
Nb															1.60				
C		Si		Mn		P		S		Cr		Ni		Mo		V		Ta	
W		N		Cu		Co		Pb		B		Nb		Al		Ti		Other	

Standard Practice for Codification of Certain Nonferrous Metals and Alloys, Cast and Wrought

B 275 GR20A 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	-

B 275 GR20A 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	-

B 275 GR20A Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

B 275 GR20A 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,	Φ8-1200mm*L	Forging, hot rolling and	Black, Rough Turning,

	Square Bar		cold rolling, Cast	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 Specialsteel the specifications follows: