

This page is mainly introduced the B12Y-B Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of B12Y-B, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel BЖЛ12Y-BИ

B12Y-B Standard Number:

ITEM	Standard Number	Descriptions
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B12Y-B Chemical composition (mass fraction) (wt.%)

Chemical	Min.(%)	Max.(%)
C	0.14	0.20
Cr	8.50	10.50
Ni		remaining
Co	12.00	15.00
Mo	2.70	3.40
W	1.00	1.80
Al	5.00	5.70
Ti	4.20	4.70
Nb	0.50	1.00
Fe		2.00

C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Russia GOCT Standard vacuum smelting casting high temperature alloy bar

B12Y-B Physical Properties

Tensile strength	115-234	σ_b /MPa
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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??12Y-B? 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??12Y-B? Heat Treatment Regime

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

B??12Y-B? 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	$\Phi 8-1200mm * L$	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 Specialsteel the specifications follows: