

This page is mainly introduced the turbine blade steel B50A947 A4 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of turbine blade steel B50A947 A4, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Steels of blade for steam turbine turbine blade steel B50A947 A4

turbine blade steel B50A947 A4 Standard Number:

ITEM	Standard Number	Descriptions
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turbine blade steel B50A947 A4 Chemical composition (mass fraction) (wt.%)

Chemical			Min.(%)				Max.(%)		
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

By 50 t, 3 LF electric arc furnace smelting furnace t electrode, electroslag remelting, insulation, annealing, 800 /650 * 4 mill production process leaves Phi 180 steel refining, casting (%: 0.06 ~ 0.15C, 0.25 ~ 0.80M 11.25 ~ 13 n, 00C R, M o = 0.30, 60N = 0 l less than or equal to 0, 025P, 0.010S). The electric furnace smelting ingredients into the dephosphorizing agent, Bachu all LF dross. After refining argon blowing, A line and C a - S l line were finally deoxidized. After analysis, the technical indexes meet the standard requirements

turbine blade steel B50A947 A4 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	-

turbine blade steel B50A947 A4 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	-

turbine blade steel B50A947 A4 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

turbine blade steel B50A947 A4 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	Φ 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 Steels of blade for steam turbine the specifications follows: