

This page is mainly introduced the 17-4PH(630) Steel for Turbine Blades Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 17-4PH(630) Steel for Turbine Blades, 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 17-4PH(630) Steel for Turbine Blades

17-4PH(630) Steel for Turbine Blades Standard Number:

ITEM	Standard Number	Descriptions
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17-4PH(630) Steel for Turbine Blades 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

Melting Process Research of Martensitic Precipitated Hardening Stainless Steel 17-4PH(630)

Studying, analyzing and summarizing melting process control of martensite precipitated hardening stainless steel 17-4PH(630), Present melting process of this kind of steel is different from traditional melting process routine-"EF(N)+VOD", Create new thinking for reducing production cycle, increasing metal recycle yield, decreasing production cost, and satisfactory effect has been achieved in the trial production, It can be used for guide melting process optimization of turbine blade steel such as 17-4PH(630), 616/422

17-4PH(630) Steel for Turbine Blades 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	-

17-4PH(630) Steel for Turbine Blades 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	-

17-4PH(630) Steel for Turbine Blades Heat Treatment Regime

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

17-4PH(630) Steel for Turbine Blades 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 Steels of blade for steam turbine the specifications follows: