

This page is mainly introduced the SB-637 N07750 Type 1 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SB-637 N07750 Type 1, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys SB-637 N07750 Type 1

SB-637 N07750 Type 1 Standard Number:

ITEM	Standard Number	Descriptions
1	SB-637	Precipitation-Hardening Nickel Alloy Bars, Forgings, and Forging Stock for High-Temperature Service

SB-637 N07750 Type 1 Chemical composition (mass fraction) (wt.%)

Chemical			Min.(%)				Max.(%)			
C							0.08			
Mn							1.0			
Si							0.5			
S							0.01			
P							0.015			
Cu							0.5			
Fe			5.0				9.0			
Co							1.0			
Nb			0.70				1.20			
Cr			14.0				17.0			
Ni			70							
Al			0.40				1.00			
Ti			2.25				2.75			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other	

SB-637 N07750 Type 1, Precipitation-Hardening and Cold Worked Nickel

Alloy Bars, Forgings, and Forging Stock for Moderate or High Temperature Service

SB-637 N07750 Type 1 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	-

SB-637 N07750 Type 1 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	-

SB-637 N07750 Type 1 Heat Treatment Regime

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

SB-637 N07750 Type 1 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
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We can produce Superalloys the specifications follows: