

This page is mainly introduced the Z6CNNb18-10M chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Z6CNNb18-10M, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Data Table for Grades Stainless Steels Z6CNNb18-10M

Z6CNNb18-10M Standard Number:		
ITEM	Standard Number	Descriptions
1	NF A 32-055	Foundry products. Weldable cast steels for pressure vessels
2	NF A 32-060	Foundry products - Cast steel and nickel alloy castings for pumps, valves and fittings (enclosures and internal components)
3	NF A 32-056	Foundry products. Austenitic and austeno-ferritic stainless cast steel

Z6CNNb18-10M Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.060
Si		0.75
Mn		2.00
P		0.040
S		0.015
Cr	17.00	19.00
Mo		
Ni	9.00	11.00
N		0.050
Nb	10×C	1.00

Z6CNNb18-10M 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	-
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Z6CNNb18-10M 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	-

Z6CNNb18-10M Heat Treatment Regime

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

Z6CNNb18-10M 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 Stainless Steels the specifications follows: