

This page is mainly introduced the MP35N Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of MP35N, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys MP35N

MP35N Standard Number:		
ITEM	Standard Number	Descriptions
1	SAE AMS 5844H (2014)	Alloy, Corrosion-Resistant, Round Bars, 20Cr - 35Ni - 35Co - 10Mo Vacuum Induction Plus Consumable Electrode Vacuum Remelted Solution Heat Treated and Work Strengthened
2	SAE AMS 5845J (2014)	Alloy, Corrosion-Resistant, Round Bars, 20Cr - 35Ni - 35Co - 10Mo Vacuum Induction Plus Consumable Electrode Vacuum Remelted Solution Heat Treated, Work Strengthened, and Aged
3	SAE AMS 5758J (2014)	Alloy, Corrosion-Resistant, Bars, 20Cr - 35Ni - 35Co - 10Mo, Vacuum Induction Plus Consumable Electrode Vacuum Remelted, Solution Heat Treated for Work Strengthening

MP35N Chemical composition(mass fraction)(wt.%)									
Chemical				Min.(%)			Max.(%)		
C							0.025		
P							0.015		
Si							0.15		
Ni				33.00			37.00		
Co							Bal		
Mn							0.15		
S							0.01		
Cr				19.00			21.00		
Mo				9.00			10.50		
Ti							1.00		
Fe							1.00		
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Alloy, Corrosion-Resistant, Round Bars, 20Cr - 35Ni - 35Co - 10Mo
 Vacuum Induction Plus Consumable Electrode Vacuum Remelted
 Solution Heat Treated and Work Strengthened

MP35N 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	-

MP35N 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	-

MP35N Heat Treatment Regime

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

MP35N 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 Superalloys the specifications follows: