

This page is mainly introduced the 10CrMo9-10 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 10CrMo9-10, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Special Steel 10CrMo9-10

10CrMo9-10 Standard Number:		
ITEM	Standard Number	Descriptions
1	EN 10028-2: 2009	Flat products made of steels for pressure purposes. Non-alloy and alloy steels with specified elevated temperature properties
2	EN 10216-2: 2014	Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy and alloy steel tubes with specified elevated temperature properties
3	EN 10253-2: 2007	Butt-welding pipe fittings. Non alloy and ferritic alloy steels with specific inspection requirements
4	EN 10273: 2007	Hot rolled weldable steel bars for pressure purposes with specified elevated temperature properties

10CrMo9-10 Chemical composition (mass fraction) (wt.%)									
Chemical		Min.(%)				Max.(%)			
C		0.08				0.14			
Si						0.5			
Mn		0.4				0.8			
P						0.020			
S						0.010			
Cr		2.00				2.50			
Mo		0.90				1.10			
N						0.012			
Cu						0.3			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

10CrMo9-10

10CrMo9-10 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	-

10CrMo9-10 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	-

10CrMo9-10 Heat Treatment Regime

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

10CrMo9-10 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	$\Phi 8$ -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

