

**This page is mainly introduced the 2HR202 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 2HR202, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## Datasheet for Steel Grades Specialsteel 2HR202

2HR202 Standard Number:		
ITEM	Standard Number	Descriptions
1	BS 2HR 202 (1973)	Specification for nickel-chromium-cobalt-titanium-aluminium heat-resisting alloy sheet and strip (nickel base, Cr 19.5, Co 18.0, Ti 2.5, Al 1.5)
2	BS 3HR 202 (2009)	Specification for nickel-chromium-cobalt-titanium-aluminium heat-resisting alloy sheet and strip (nickel base, Cr 19.5, Co 18.0, Ti 2.5, Al 1.5)

2HR202 Chemical composition(mass fraction)(wt.%)										
Chemical		Min.(%)					Max.(%)			
C							0.13			
Si							1.00			
Mn							1.00			
P										
S							0.015			
Cr		18.00					21.00			
Ni							remaining			
Mo										
Co		15.00					21.00			
Ti		2.00					3.00			
Fe							1.50			
Al		1.00					2.00			
Cu							0.20			
B							0.020			
Bi							0.0001			
Pb							0.002			
Ag							0.0005			
Zr							0.15			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	

W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Specification for nickel-chromium-cobalt-titanium-aluminium heat-resisting alloy sheet and strip

(nickel base, Cr 19.5, Co 18.0, Ti 2.5, Al 1.5)

2HR202 Physical Properties		
Tensile strength	115-234	$\sigma_b$ /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta_5 \geq$ (%)
$\psi$	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	123-321	-
HRC	30	-

2HR202 Mechanical Properties		
Tensile strength	231-231	$\sigma_b$ /MPa
Yield Strength	154	$\sigma_{0.2} \geq$ /MPa
Elongation	56	$\delta_5 \geq$ (%)
$\psi$	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	235-268	-
HRC	30	-

### 2HR202 Heat Treatment Regime

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

### 2HR202 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 Specialsteel the specifications follows:**