

This page is mainly introduced the 2HR2 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 2HR2, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 2HR2

2HR2 Standard Number:

ITEM	Standard Number	Descriptions
1	BS 1449-1-1.2	Steel plate, sheet and strip. Carbon and carbon-manganese plate, sheet and strip. Specification for hot rolled steel plate, sheet and wide strip based on formability

2HR2 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

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Steel plate, sheet and strip. Carbon and carbon-manganese plate, sheet and strip. Specification

for hot rolled steel plate, sheet and wide strip based on formability

2HR2 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	-

2HR2 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	-

2HR2 Heat Treatment Regime

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

2HR2 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: