

AVAILABLE STEEL MATERIALS

Steel Grade	6061-T6_T651		Supplier	ALCOA								
Steel Type	alloy aluminium board		Updating Price	<input type="button" value="Check"/>								
Standard and Certificate	-											
State as Delivered and Hardness	T6/T651 hot treatment hot rolling and aging treatment to HB95(T651 have made stress relief)											
Typical Chemical Composition	Component	Si	Fe	Cu	Mn	Mg	Cr	Nr	Zn	Ti	Other	Ai
	Percent	0.40-0.8	0.7	0.15-0.4	0.15	0.8-1.2	0.04-0.35	-	0.25	0.15	0.15	allowance
Steel Properties	-											
Steel Applications	1. Injection moulds;blow moulds; extrusion blow moulds;shoe moulds; foam moulds and vacuum forming moulds; 2. Handmade moulds; 3.jags and supporting plate of electric industry 4.machining parts; 5.ultrasonic welding parts 6.silk printing machine' s parts 7.machenical hand and oil pressure pneumatic hydraulic system parts; 8. Automatic mechanical components; 9. horologe parts											
Austenitizing Temperature	-		Quenching Method	-								
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C							
	-	-	-	-	-							

Steel Grade	6061-T6511		Supplier	ALCOA		
Steel Type	Non-Ferrous Metal		Updating Price	<input type="button" value="Check"/>		
Standard and Certificate	-					
State as Delivered and Hardness	Age Hardening to HB 95					
Typical Chemical Composition	Chemical analysis can be referred to relevant information.					
Steel Properties	Aluminium alloy with good corrosion resistance, excellent joining characteristics and anodizing.					
Steel Applications	Thermoforming and blow moulding, ultrasonic welding and machine parts.					
Austenitizing Temperature	-		Quenching Method	-		
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C	
	-	-	-	-	-	

Steel Grade	718H	Supplier	ASSAB(UDDEHOLM)				
Steel Type	Plastic Mould Steel	Updating Price	<input type="button" value="Check"/>				
Standard and Certificate	P20 Modified						
State as Delivered and Hardness	Prehardened to HB 330 - 380						
Typical Chemical Composition	Component	C	Si	Cr	Ni	Mo	
	Percent	0.38	0.3	2.0	1.0	1.4	0.2
Steel Properties	Prehardened type, high purity with isotropic microstructure contains 1.0% Ni.						
Steel Applications	High quality mould inserts, best suitable for plastic moulding of PA, POM, PS, PE, PP, ABS.						
Austenitizing Temperature		Quenching Method					
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		
	Prehardened Condition						

Steel Grade	8418	Supplier	ASSAB				
Steel Type	Hot Work Tool Steel	Updating Price	<input type="button" value="Check"/>				
Standard and Certificate	NULL						
State as Delivered and Hardness	Annealed to HB 160						
Typical Chemical Composition	Component	C	Si	Cr	Mn	Mo	V
	Percent	0.35	0.20	5.0	0.75	2.3	0.80
Steel Properties	Excellent toughness, excellent resistance to heat checking, high temperature strength, good hardenability and tempering properties.						
Steel Applications	Suitable for medium to big die casting molds for magnesium, aluminium and zinc alloys, aluminium extrusion die and high tooling of plastics.						
Austenitizing Temperature	1020	Quenching Method	Air				
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		
				52	46		

Steel Grade	ADC3		Supplier	AUBERT and DUVAL		
Steel Type	Hot Working Steel		Updating Price	<input type="button" value="Check"/>		
Standard and Certificate	H11 Modified(HP Refined)					
State as Delivered and Hardness	Annealed to HB 235(approx)					
Typical Chemical Composition	Component	C	Cr	Mo	V	
	Percent	0.35	5.0	1.3	0.4	
Steel Properties	The chemical composition and microstructure are controlled strictly. Unsurpassed material quality, superior toughness, excellent resistance to crack propagation and heat checks, higher thermal conductivity, deep hardening, low distortion during heat treatment.					
Steel Applications	Effective for medium to large high quality hot-work dies for aluminium, magnesium and zinc alloys.					
Austenitizing Temperature			Quenching Method			
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C	
As to the heat treatment process, refer to the product's specification						

Steel Grade	CALMAX 635		Supplier	ASSAB(UDDEHOLM)			
Steel Type	Cold Working Steel		Updating Price	<input type="button" value="Check"/>			
Standard and Certificate	High Wear Resistance Multifunctional Tool Steel						
State as Delivered and Hardness	Annealed to HB 200(approx.)						
Typical Chemical Composition	Component	C	Si	Cr	Mn	Mo	V
	Percent	0.6	0.35	4.5	0.8	0.5	0.2
Steel Properties	Extremely high toughness and high wear resistance, good hardenability and weldability, good flame and induction hardenability to HRC58-60, with harden layer up to 5mm thickness.						
Steel Applications	Resisting adhesive wear, suitable for high strength plastic mould and compacting die such as mould of fibre-reinforce plastics.						
Austenitizing Temperature	960		Quenching Method	Air			
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		
	60	58	55	-			

Steel Grade	CERTAL 7022-T651	Supplier	ALCAN		
Steel Type	Non-Ferrous Metal	Updating Price	<input type="button" value="Check"/>		
Standard and Certificate	High Hardness Aluminium Alloy				
State as Delivered and Hardness	Prehardened to HB 145 - 170				
Typical Chemical Composition	Chemical analysis can be referred to relevant information.				
Steel Properties	High strength, high hardness, good machinability.				
Steel Applications	Plastic injection moulding, blow moulding, ultrasonic welding and machine parts.				
Austenitizing Temperature	-	Quenching Method	-		
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C
	-	-	-	-	

Steel Grade	CORRAX S336	Supplier	ASSAB(UDDEHOLM)				
Steel Type	Plastic Mould Steel	Updating Price	<input type="button" value="Check"/>				
Standard and Certificate	Special Precipitation Hardening Stainless Steel						
State as Delivered and Hardness	Solution treated to 32HRC						
Typical Chemical Composition	Component	C	Si	Cr	Ni	Mn	Mo
	Percent	0.03	0.3	12.0	9.2	0.3	1.4
Steel Properties	Can be hardened to HRC50 by ageing, excellent corrosion resistance, good weldability, high polishability, extremely good dimensional stability during ageing.						
Steel Applications	Injection moulds for corrosive plastics, rubber, medical and food industry and plastic parts with complicated design.						
Austenitizing Temperature		Quenching Method					
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		
Flexible hardness, 32-50HRC, achieved by an ageing treatment in the temperature range 425-600°C.							

Steel Grade	DC11	Supplier	DAIDO					
Steel Type	Cold Working Steel	Updating Price	Check					
Standard and Certificate	SKD11							
State as Delivered and Hardness	Annealed to HB 255(approx.)							
Typical Chemical Composition	Component	C	Si	Cr	Ni	Mn	Mo	V
	Percent	1.6	0.4	13.0	0.5	0.6	1.2	0.5
Steel Properties	Excellent wear resistance with high chromium cold work tool steel.							
Steel Applications	Suitable for cold extrusion, cold drawn dies, punching and blanking dies for stainless steel or metal sheets with high hardness.							
Austenitizing Temperature	1025	Quenching Method	Air/Ou					
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C			
	62	60	58	-				

Steel Grade	DC53	Supplier	DAIDO				
Steel Type	Cold Working Steel	Updating Price	Check				
Standard and Certificate	JIS SKD11 Modified						
State as Delivered and Hardness	Annealed to HB 255(approx.)						
Typical Chemical Composition	Patent Pending						
Steel Properties	High chromium cold working tool steel with high toughness, can be hardened to 60HRC by quenching and high temperature tempering, be favorable to do WEDM, reduce the cracking possibility.						
Steel Applications	Best suitable for pressing high adhesive wear material such as austerite stainless steel, aluminium alloy, copper alloy, suitable for surface coating such as ion nitriding and PVD coating ... etc.						
Austenitizing Temperature		Quenching Method					
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		
	As to the heat treatment process, refer to the product's specification						

Steel Grade	DH31-SUPER		Supplier	DAIDO	
Steel Type	Hot Working Steel		Updating Price	<input type="button" value="Check"/>	
Standard and Certificate	SKD61, Modified				
State as Delivered and Hardness	Annealed to HB 190(approx.)				
Typical Chemical Composition	Patent Pending				
Steel Properties	Good through hardening properties, excellent resistance to crack propagation and heat checks, good erosion resistance.				
Steel Applications	Suitable for die casting for aluminium and magnesium alloy, the parts of die casting die, extrusion for aluminium alloy.				
Austenitizing Temperature	1030		Quenching Method	Air	
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C
	-	-	-	-	-

Steel Grade	DHA 1		Supplier	DAIDO			
Steel Type	Hot Mould Steel		Updating Price	<input type="button" value="Check"/>			
Standard and Certificate	AISI H13/JIS SKD61						
State as Delivered and Hardness	Annealed to HB 220						
Typical Chemical Composition	Component	C	Si	Cr	Mn	Mo	V
	Percent	0.37	0.9	5.0	13.5	1.3	1.0
Steel Properties							
Steel Applications							
Austenitizing Temperature			Quenching Method				
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C		

Steel Grade	GOA	Supplier	DAIDO						
Steel Type	Cold Working Steel	Updating Price	<input type="button" value="Check"/>						
Standard and Certificate	SKS3 Modified								
State as Delivered and Hardness	Annealed to HB 217(approx.)								
Typical Chemical Composition	Component	C	Si	Cr	Ni	Mn	Mo	W	
	Percent	0.86	0.3	0.5	0.25	1.2	0.13	0.5	
Steel Properties	High hardenability and wear resistance cold working tool steel.								
Steel Applications	Punches for cold forming and blanking, shearing blades for metal sheet.								
Austenitizing Temperature	830	Quenching Method	Oil						
Tempering Temperature and Hardness Cross Reference	180°C	225°C	300°C	570°C	610°C				
	62	60	58	-					

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