

# Keech Australia. Alloy Specification Sheet.

Keech Alloy	Equivalent Specifications				Typical Chemical Composition								Typical Properties	Typical Applications
	Australian	British	ASTM	Other	C	Si	Mn	Ni	Cr	Mo	Other			
<b>A. Carbon Steels</b>														
K3	AS2074-C3	BS3100-A1	A216-WCA	SAE 1020	0.20	0.45	0.70	-	-	-	-	430 MPa tensile strength.	Mild steel, readily machined and welded. General engineering purposes.	
K4-1	AS2074-C4-1		A216-WCB		0.28	0.45	0.70	-	-	-	-	460 MPa tensile strength.		
K4-2	AS2074-C4-2	BS3100-A2	A216-WCC		0.30	0.45	1.00	-	-	-	-	500 MPa tensile strength.		
K5	AS2074-C5	BS3100-A3		SAE 1040	0.40	0.50	0.70	-	-	-	-	550 MPa tensile strength.	Medium carbon, higher strength for general engineering – flame hardening.	
K6	AS2074-C6	BS3100-AW2			0.45	0.50	0.70	-	-	-	-	600 MPa tensile strength.		
KP-1	AS2074-L1A	BS3100-A4			0.20	0.60	1.40	-	-	-	-	550 MPa tensile strength.	Medium carbon, higher strength steel for general engineering.	
KP-2	AS2074-L1B	BS3100-A5			0.28	0.60	1.40	-	-	-	-	600 MPa tensile strength.		
<b>B. Low Alloy Steels</b>														
KK	AS2074-L6		A148-115/95	SAE 8630	0.30	0.40	0.70	0.50	0.50	0.20	-	700-1200 MPa tensile strength, high strength & toughness. Available ranges 180-477 Brinell.	General engineering castings. Operating in high load and stress conditions.	
KH				SAE 4316	0.16	0.45	0.95	2.00	0.90	0.30	-	Medium strength, excellent weldability.	Large weld-on adapters.	
KL				SAE 4320	0.18	0.50	0.80	2.00	0.90	0.30	-	High hardness, strength. Good weldability.	Adapters and weld-on applications.	
KJ				SAE 4130	0.31	0.45	0.95	-	1.00	0.30	-	High hardness and toughness.	Large variety of ground engaging items.	
KT			A148-130/115	SAE 8640	0.40	0.45	0.80	0.50	0.50	0.20	-	Similar to alloy 'KK'. Greater hardenability.	Axe heads and cutting tools.	
KF	Keech Alloy				0.30	1.30	1.10	-	1.40	-	V, B	Wear and impact resistance.	Large variety of ground engaging items.	
KN	Keech Alloy				0.30	1.00	0.90	2.20	0.90	0.50	-	Wear and impact resistance.	Large variety of ground engaging items.	
<b>C. Stainless Steels</b>														
KH8E	A2074-H8E		A297-HK		0.40	1.00	1.00	20.5	25.5	-	-	Heat resistant to 1150°C.	Structural furnace items, radiant tubes.	
KH8C	A2074-H8C		A297-HH		0.30	1.00	1.00	12.0	25.0	-	-	Heat resistant.	High temperature service.	
KH8F	A2074-H8F		A297-HN		0.30	1.00	1.00	25.0	20.0	-	-	Similar to 'HK' alloy (KH8E). Good resistance to hot gases corrosion.	Furnace skid rails, stack dampers.	
KH8G	A2074-H8G		A297-HT		0.50	1.50	1.00	35.0	16.0	-	-	Good resistance to oxidation and carburisation.	Heat treatment plant, tooling and burner nozzles.	
KH8H	A2074-H8H		A297-HU		0.50	1.50	1.00	38.0	19.0	-	-	Resistance to deterioration by thermal cycling.	Furnace tooling.	
KH8H45	A2074-H8H				0.40	1.00	1.00	45.0	20.0	-	-	Resistance to high temp. oxidation.	Furnace items, pouring spouts, rabble shoes and arms, etc.	
KH9A	A2074-H9A		A351-CN7M		*0.07	1.00	1.00	29.0	20.0	2.50	Cu2-3	Excellent corrosion resistance in acid and salt services.	Valves, pumps, fittings.	
KH5A	A2074-H5A		A351-CF8		*0.08	1.00	1.00	10.0	19.5	-	-	Corrosion resistance.	Pumps, valves, etc.	
KH3A	A2074-H3A	BS3100-410-C2	A217-CA15		0.10	1.00	0.50	-	12.5	-	-	Corrosion and abrasion resistance.	Special app. for pumps and valve trim.	
<b>D. Martensitic White Irons</b>														
KWI-27	AS2027-Cr27		A532 Type IIIA		3.0	0.75	0.75	-	27.0	1.0	-	Abrasion resistance.	Pump items – flotation impellers. Wear liners and blocks.	
KWI-15	AS2027-CrMo 15.3				3.2	0.75	0.50	-	15.0	2.75	-	Abrasion resistance, higher toughness.	Wear liners and blocks.	
KWI-2	AS2027-NiCr2-500			Ni-Hard 2	2.8	0.70	0.50	4.50	1.50	-	-	Abrasion resistance.	Various components in grinding mills, shot blast machines.	
KWI-4	AS2027-NiCr4-600		A532 Type ID	Ni-Hard 4	3.0	1.75	0.50	6.0	8.0	-	-	Abrasion and shock resistance.	Jaw crushers, hammer mills, mill liners.	
<b>E. Austenitic Manganese Steels</b>														
KAM-1A	A2074-H1A		A128-A		1.15	-	12.5	-	-	-	-	Good impact and abrasion resistance.	Wide variety of applications including earthmoving, mining, rail roading, drilling and quarrying. Jaw and cone crusher parts.	
KAM-1B	A2074-H1B		A128-C		1.15	-	12.5	-	2.0	-	-	Better abrasion resistance but lower impact strength.		
KAM-1C	A2074-H1C		A128-E1		1.20	-	12.5	-	-	1.10	-	Improved toughness and strength.		
KAM-1D	A2074-H1D				1.4	-	17	-	-	-	-	Improved toughness and strength.		
<b>F. Ductile (S.G.) and Grey Irons</b>														
KSG-15	AS1831-400-15				3.5	2.20	-	0.9	-	-	-	Good ductility and machinability.	Used in applications where a combination of medium strength and excellent machinability is required. Mining gears, wheels, pulleys, etc.	
KSG-10	AS1831-450-10		A536 65-45-12		3.5	2.20	-	0.9	-	-	-	Good ductility and machinability.		
KSG-7	AS1831-500-7		A536 80-55-06		3.5	2.20	-	0.9	-	-	Cu	Increased strength, lower ductility.		
KSG-2	AS1831-700-2		A536 120-90-02		3.5	2.20	-	0.9	-	-	Cu	Higher strength, low ductility.		
KCI-1	AS1830-T350		A48-60		2.80	1.60	0.90	-	-	-	-	Machinability.	General engineering castings where machinability is a prime requirement.	
KCI-2	AS1830-T300		A48-45		3.0	1.70	0.90	-	-	-	-	Machinability.		
KCI-3	AS1830-T150		A48-25		3.6	2.60	0.50	-	-	-	-	Machinability and dimensional stability.		
<b>G. Special Alloys</b>														
					Cr	Ni	Co	Mo	W	Fe	C			
K-SA1				Stellite	30.0	1.0	61.5	-	4.5	1.0	1.00		Extreme high temperature applications where oxidation resistance and hot strength are prime requirements.	
K-SA2				Hastelloy C	16.5	56.0	-	17.0	4.5	6.0	0.15			
K-SA3				Super -22H	28.0	48.0	3.25	-	5.0	Bal.	0.50			

Notes: 1. \* – Refers to maximum. 2. The above table of alloys is not intended to represent the full range of alloys produced by Keech Australia. Should alloys other than those shown above be required, enquires should be directed through our sales department. 3. The data included in the above table is presented as typical information and should only be considered as a guideline. For detailed specifications and further assistance, please contact our sales department.



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