

1020

CUSTARD

CUSTARD

CHARACTERISTICS

Hardness Supplied (HB) 142 - 119

Tensile Strength (Mpa) 410 - 480

Machinability Rating % 65

POSSIBLE ALTERNATIVE GRADES

1018, 1030, 1214, 12L14

EQUIVALENTS

BS	AISI/SAE	UNS	DIN	C	Si	Mn	P	S
970	1020	G10200	C22	0.15	0.35 max	0.3	0.05 max	0.05 max
070M20				0.25		0.9		

CHEMICAL ANALYSIS

NOTES

Known as Bright Mild Steel (BMS).

Suits general purpose "mild steel" applications. Good balance of strength, ductility, toughness and weldability.

Applications

May be Hot Dip Galvanised provided Si below 0.05%. Readily Cold formed, may be case hardened but not induction or through Hardened. Used as Jack Handles, threaded bars, shafts and axels in lighter applications.



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

1030

WHITE

WHITE

CHARACTERISTICS

Hardness Supplied (HB) 164 - 147

Tensile Strength (Mpa) 500 -560

Machinability Rating % 70

POSSIBLE ALTERNATIVE GRADES

1018, 1020, 1214, 12L14

EQUIVALENTS

BS	AISI/SAE	UNS	DIN	C	Si	Mn	P	S
970	1030	G10300	C30	0,25	0,35 max	0,30	0,05 max	0,05 max
080M30				0,35		0,90		

CHEMICAL ANALYSIS

NOTES

Slightly higher strength and lower ductility than "mild steel". Provides more strength than 1020 while remaining reasonably ductile and weldable. Applications include shafts and Architectural fittings.

Applications

Cannot be Hot Dip Galvanised. Low Hardenability, not recommended for Case Hardening. Motor Shafts, Gate Hinges.

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

1214

ROSE PINK

ROSE PINK

CHARACTERISTICS

Hardness Supplied (HB) 230 - 350

Tensile Strength (Mpa) 370 - 480

Machinability Rating % 158

POSSIBLE ALTERNATIVE GRADES

1018, 1020, 1030, 12L14

EQUIVALENTS

BS	AISI/SAE	UNS	DIN	C	Si	Mn	P	S
970	1213	G12130	9SMn28	0,15 max	0,10 max	0,80	0,04	0,25
220M07						1,20	0,09	0,35

CHEMICAL ANALYSIS

NOTES

A widely used free machining steel which has reasonable ductility and weldability. Mainly used for items that require extensive machining.

Applications

Suitable for Case Hardening but not recommended for induction or Flame Hardening. Used for Brake Pistons, hose ends, pulley inserts, vice jaws(case hardened). DO NOT GALVANISE. DO NOT WELD.

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

1045

BLACK

BLACK

CHARACTERISTICS

Hardness Supplied (HB)	300 - 540
Tensile Strength	600 - 690
Machinability Rating %	55

POSSIBLE ALTERNATIVE GRADES

1040, 1045, 4140, 718 Impax

EQUIVALENTS

BS	AISI/SAE	UNS	DIN	C	Si	Mn	P	S
970	1045	G10450	C45	0,43	0,10	0,60	0,04 max	0,04 max
080A47				0,50	0,35	0,90		

CHEMICAL ANALYSIS

NOTES

High strength with reasonable ductility and weldability. A grade which finds its greatest usage in hard chromed bars for hydraulic and pneumatic rams.

Applications

DO NOT GALVANISE. DO NOT COLD FORM. DO NOT CASE HARDEN. Used in Motor Shafts, Pump Shafts, Take Off Shafts, Rams.

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

BLUBELL

JADE

4140

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Tensile Strength (Mpa)

900

ASTM

AISI

BS

JIS

C

Si

Mn

Cr

Mo

A29M

4140

970

4105

0,40

0,25

0,80

0,90

0,20

Hardness Supplied (HB)

270

91 4140

EN19A

Machinability Rating %

50

NOTES

General purpose high tensile steel, used for axles, shafts, high tensile studs and bolts, gears and drilling rods. Generally supplied hardened and tempered. **Generally only available in round bars, may use 718 Impax for block and flats.**

DESCRIPTION

4140 is a 1% Chromium - Molybdenum (Chrome-Moly) high tensile steel alloy bar. May be Known as 709 and 709M

HEAT TREATMENT

Suitable for flame and induction hardening. Heat to 840 C - 875 C, hold until temperature is uniform throughout the section, soak for 10 to 15 minutes per 25 mm section, and quench in oil, water, or polymer as required.

840-875°C

HEAT COLOUR
STRAW

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

EDCON
STEEL

**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

316

BOTTLE GREEN

BOTTLE GREEN

CHARACTERISTICS

Tensile Strength (Mpa) 580 - 650

Hardness Supplied (HB) 195 - 150

Machinability Rating % 48

DESCRIPTION

Type 316 has extensive use in chemical processing equipment when better corrosion resistance is required than is afforded by chromium-nickel steels. Typical applications are Food Processing, Chemical Processing, Photographic, Pharmaceutical and Textile Finishing Equipment and Marine Exterior Trim.

CHEMICAL ANALYSIS

C	Si	Mn	P	S	Cr	Mo	Ni
0,08	0,75	2,0	0,045	0,03	16,0	2,0	10,0
					18,0	3,0	14,0

NOTES

High corrosion resistance to attacks in marine and corrosive industrial atmospheres. The excellent corrosion resistance makes it suitable particularly where 304 is doubtful.

HEAT TREATMENT

NOT RECOMMENDED



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

LG2 Bronze

NATURAL

NATURAL

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Tensile Strength (Mpa)

200 - 270

ASTM

AISI

BS

JIS

Cu

Sn

Zn

Pb

SAE 40

1400

BC6C

85

5

5

5

C83600

LG2-C

Hardness Supplied (HB)

80 - 66

Machinability Rating %

178

NOTES

Commonly known as Lead Gunmetal. May be used for Phosphour Bronze (PB1) applications.

DESCRIPTION

Continuous Cast Bronze Bar, also available in Hollow Bars. Continuously cast bar has greatly improved physical properties compared to normal sand cast material due to the elimination of inclusions.

Applications

General purpose bearing, hydraulic components, Gears, WormWheels, Valve seats, slide valves, rollers, wear rings.



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

4E Cast Iron

NATURAL

NATURAL

CHARACTERISTICS

Tensile Strength 220- 260 Mpa

Hardness (Brinell) 170-220

Compressive Strength 700-800 Mpa

DESCRIPTION

For use with Hydraulics, Pneumatics, Machine tools, Tool Dies and many general applications. Ideally suited to high speed machining. Good wear resistance.

EQUIVALENTS

ASTM	DIN	BS	JIS
A.478	1691	1452	FC
35-40	GG35	17	25

CHEMICAL ANALYSIS

C	Si	Cu	Mn
3	2.2	0.3	0.7
3.7	2.9		0.2

NOTES

Surface: Free of sand.

Applications

Hydraulics, Pnuematics: Pistons, support bearings, glands, slide bearings, distributor blocks, manifolds. Machine Tools: Supports, guide rails, scale bars, spindle sleeves spacers, bushings, gear wheels, spur gears, change gears, pulleys, gear racks. Pump, Compressors: Oil pump gears, impellers, plate valves. Tools, Dies: Angle plates, marking plates, V-blocks, round-tables. Automotive: Shock absorber, pistons, oil pump gears, pulleys, multi-groove pulleys. General:

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

750 HB

WHITE

WHITE

CHARACTERISTICS		EQUIVALENTS				CHEMICAL ANALYSIS					
Tensile Strength (Mpa)	690	UNS	AISI	BS	W.Nr	C	Si	V	Mn	S	P
		K01907		4360	1.5217	0.16	0.1	0.08	1.3	0.02	0
Hardness Supplied (HB)	210	K12202		GR 55		0.22	0.35	0.15	1.6	0.04	0.03
Machinability Rating %	65	<p>NOTES</p> <p>20MnV6 hollow bar is used extensively by all industry sectors for a wide range of applications utilizing it's considerable saving on machining time and weight over solid bar.</p> <p>Typical applications are: Bushes, Cylinders Various, Conveyor Rolls, Hollow Shafts, Hollow Parts and components, Nuts, Rings, etc.</p>									
DESCRIPTION											
20MnV6 is a carbon-manganese steel micro alloyed with vanadium, generally supplied in the black hot rolled condition		<p>HEAT TREATMENT</p> <p><i>Case Hardening</i> <i>Water quench from 760 C - 780 C.</i></p>								<p>760-780°C</p> <p>HEAT COLOUR LIGHT RED</p>	



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

Stavax

BLACK

MARIGOLD

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Tensile Strength (Mpa)

1780 @ 50 HRC

W.nr

AISI

C

Mn

Cr

V

1.2083

420 ESR

0.38

0.5

13.6

0.3

Hardness Supplied

215 HB

Density (kg/m³)

7800

POSSIBLE ALTERNATIVES

M310, M340

DESCRIPTION

A through-hardening premium stainless mold steel with very good corrosion resistance and excellent polishability. Stavax® ESR is an excellent choice for small to medium size tools where corrosion in production is unacceptable and where the requirements for good hygiene are high.

HEAT TREATMENT

SEE MANUFACTURERS SPECIFICATIONS

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

DF2 Arne

GOLDEN TAN

GOLDEN TAN

CHARACTERISTICS

Compressive Strength (Mpa) 2150 @ 60 HRC

Hardness Supplied 190 HB delivery condition

Density (kg/m³) 7800

DESCRIPTION

A general purpose tool steel suitable for a wide variety of cold work applications. Characteristics include good machinability and a good combination of high surface hardness and toughness after hardening and tempering.

EQUIVALENTS

AISI

W.Nr.

01

1.2510

CHEMICAL ANALYSIS

C

Mn

Cr

W

V

0.95

1.1

0.6

0.6

0.1

POSSIBLE ALTERNATIVES

K720, Silver Steel, Flat Ground Stock

HEAT TREATMENT

SEE MANUFACTURERS RECOMMENDATIONS



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

K100

LILAC

CUSTARD

CHARACTERISTICS

Average Rockwell C after tempering	57-64
Hot Forming Temp.	1050-850 C
Annealing Temp.	800-850

EQUIVALENTS

EN/DIN	AISI	BS	JIS
<1.2080>	D3	BD3	~SKD1
X210Cr12			

CHEMICAL ANALYSIS

C	Si	Mn	Cr
2,00	0,25	0,30	11,50

POSSIBLE ALTERNATIVES

Sverker 3, XW - 5

DESCRIPTION

Standard grade of high carbon, high chromium steels. High performance cutting tools (dies & punches), blanking and punching tools.

HEAT TREATMENT

SEE MANUFACTURERS RECOMMENDATIONS

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

K110

LILAC

LILAC

CHARACTERISTICS

Average Rockwell C after tempering	58-63
Hot forming temp.	1050-850
Annealing temp.	800-850

EQUIVALENTS

EN/DIN	AISI	BS	JIS
<1.2379>	D2	BD2	~SKD11
5CrVMo12-1			

CHEMICAL ANALYSIS

C	Si	Mn	Cr	Mo	V
1,55	0,25	0,35	11,80	0,80	0,95

POSSIBLE ALTERNATIVES

XW41, D2, Sverker 21

DESCRIPTION

K110 features excellent toughness and is suitable for bath nitriding. Used for high performance cutting tools.

HEAT TREATMENT

SEE MANUFACTURERS RECOMMENDATIONS



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

EN36A

TURQUOISE

TURQUOISE

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Tensile Strength (Mpa) 700 - 770

DIN	AISI	BS	JIS	Ni	C	Mn	Cr	Si	Cr
14NiCr14	E3310	655M13	SNC815	3	0,13	0,5	0,9	0,25	0.7
				3.75					1

Hardness Supplied (HB) 212

NOTES

Can be welded before carburizing and case hardening.

DESCRIPTION

A Nickel-chrome case hardening steel with high hardenability and a hard core strength. Typical applications include highly stressed gears and heavily loaded shafts.

HEAT TREATMENT

Case Hardening

Following core refining, re-heat to 760 C - 800 C, hold until temperature is uniform throughout the section, and quench in oil. Temper immediately while still hand warm.

760-780°C

HEAT COLOUR
LIGHT RED



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

Calmax

WHITE

VIOLET

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Compressive Strength 2500 @ 58 HRC

ASTM	AISI	BS	JIS	C	Si	Mn	Cr	Mo	V
				0.60	0.35	0.80	4.50	0.50	0.20

Hardness Supplied 200 HB delivered condition

NOTES

Density (kg/m³) 7770

The majority of presswork tools today used are manufactured of steels such as 01, A2, D2, D3 or D6. These steels offer adequate wear resistance and suitable hardness, however poor toughness, flame and induction hardenability often mean high maintenance costs. The excellent combination of toughness and wear resistance makes CLAMAX excellent for long production runs and compression moulds.

DESCRIPTION

A cold work steel suitable for short to medium runs for a wide variety of applications where adhesive wear dominates and/or where the risk of chipping or cracking is high.

HEAT TREATMENT

SEE MANUFACTURERS SPECIFICATIONS



**YOUR COMPLETE
STEEL SERVICE
CENTRE**

BROOKVALE STORE

45 Orchard Rd
Brookvale NSW 2100
Phone 9905 5477
Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
Revesby NSW 2122
Phone 9772 3800
Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
Arndell Park NSW 2148
Phone 9676 3699
Fax 9676 3669

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.

LIME GREEN

CUSTARD

718 - IMPAX

CHARACTERISTICS

EQUIVALENTS

CHEMICAL ANALYSIS

Tensile Strength (Mpa) 1020

AISI	W.nr	C	Mn	Cr	Mo	S	Ni
P20+Ni	1.27	0.37	1.40	2.00	0.20	0.01	1.00

Hardness Supplied 290-330 HB

Density (kg/m³) 7800

POSSIBLE ALTERNATIVES

Impax Supreme, M200

DESCRIPTION

Prehardened plastic mould steel. Very good polishability and good machinability.

HEAT TREATMENT

SEE MANUFACTURERS SPECIFICATIONS

BROOKVALE STORE

45 Orchard Rd
 Brookvale NSW 2100
 Phone 9905 5477
 Fax 9905 3653

REVESBY STORE

Unit 1, 20 Marigold St
 Revesby NSW 2122
 Phone 9772 3800
 Fax 9774 5439

BLACKTOWN STORE

Unit 3, 11 Penny Place
 Arndell Park NSW 2148
 Phone 9676 3699
 Fax 9676 3669



**YOUR COMPLETE
 STEEL SERVICE
 CENTRE**

WARNING: While all care has been taken to provide accurate information here, it should be noted that it is for a guide only and any information must be checked by the manufacturer before being relied upon.