ALUMINIUM ROLLED PRODUCTS

SHEET PRODUCTS

Alloy	Temper	Basic Properties	Old B.S. Spec.	Computer Short code
1200	H14	Can be manufactured but has been replaced by 1050A	S1C	AS 1200
1050A	H14 (half hard)	Most common commercial alloy in the ½ hard temper. Easily bends & welds.	S1B	AS 1050
3103	H14	Stronger alloy than 1050A	NS3	AS 3103
5251	H22 (¼ hard) H24 (½ hard)	Medium strength alloy. Good corrosion resistance. Will anodise, but no guarantee on finish.	NS4 H3 NS4 H6	AS 5251
5005 J57S		Commercial anodising quality alloy. Architectural anodising quality alloy (produced by Novelis)		AS 5005 AS J57
5083	O or H111	Medium/high strength alloy with good corrosion resistance. Suitable for marine applications	NS8 O	AS 5083
5754	H111 H22 H24	Similar to 5251.		AS 5754
6082	T6	Good strength and corrosion resistance. Recommended for structural applications.	HS30 TF	AS 6082

Surface finishes : Mill finish = as it comes from the producing mill

Painted = paint finish applied to one or both sides

Short code AB.

Anodised = electrical (anode) process producing a decorative surface finish (usually silver/natural , but can be coloured). Sort code ASA.

Polishing = abrasive process using belts / mops to produce a Variety of finishes : i.e. satin effect , bright or mirror effect.

PVC coating = a protective plastic film can be applied to one or both sides to protect the surfaces during fabrication After fabrication is complete this can be peeled off.

PATTERNED SHEET

Description	Alloy	Computer short code
Five Bar Treadplate	5754-H111	AG 5754
Stucco Embossed	1050A-H14	AD
Propeller Pattern – “diamond bright”	3003	AG 3003
Tripple Grip	5052	AG 5052

ALUMINIUM EXTRUDED PRODUCTS

Alloy	Temper	Basic Properties	Old B.S. Spec	Computer short code
6063	T6 T5 T4	Medium strength alloy. Suitable for anodising T4 temper is suitable for bending. .	HE9 TF HE9 TB	 A? 6063
6063A	T6	Variant of 6063. Higher strength.		A? 6063A
6082	T6	Strong alloy. Structural applications	HE30 TF	A? 6082
6062	T9	Good machining properties.		AR 6062

2011	T3/T6	Free machining alloy (FMA) for use on automatic lathes or where good machining properties are needed. “chips” rather than “swirls”	FC1	AR 2011

Types of extrusion available are :

Shape
Typical alloy_____Short Code

Round bar
6082, 6062,2011 AR
Angle
6063/6082 AA
Channel
6063/6082 AU
Flat bar
6063/6082 AF
T & Z Sections
6063/6082 AL & RZ
Hollow section – Round Tube
6063/6082 AT
Square & Rectangular Tube
6063/6082 AE
Moulding & Misc. Sections & Wallboards
6063 AU??,DFE,HRM,WB
Customer Specials i.e. bespoke extrusions
to customer spec.
Any. XH???

Surface finishes : mill, anodised, polished and painted.

ALUMINIUM PLATE

Aluminium plate in generally defined as material > 6mm thick. Most plate is supplied cut to customer requirement.

Alloy	Temper	Basic properties	Old B.S. Spec	Computer short code
6082	T6 or T651	Fully heat treated to the hardest temper. Good machining quality.	HP30 TF	AP 6082
5083	O	Medium strength but poorer machining quality than 6082. Can be anodised OK.	NP8 O	AP 5083
Alumec 89		High strength plate developed for plastic injection moulding. “7000” series		AP ALUMEC
MIC 6		Cast plate that is machined to achieve excellent flatness. Very stable.		AP MIC

ALUMINIUM SHATE

Shate is a term used to describe material that has a thickness of 4mm, 5mm or 6mm.

Typical alloys stocked are : 1050, 5251, 5083 and 6082.

Computer short code : AM
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WEIGHT CALCULATION AND SWG CONVERSIONS for ALUMINIUM SHEET

Thickness (mm)	SWG	Computer short code :
0.5	25swg	AS25
0.56	24swg	AS24
0.6	23swg	AS23
0.7	22swg	AS22
0.8	21swg	AS21
0.9	20swg	AS20
1.0	19swg	AS19
1.2	18swg	AS18
1.5		AS17
1.63	16swg	Now 1.5mm
2.0	14swg	AS14
2.5		AS12
2.64	12swg	Now 2.5mm
2.84	11swg	
3		AS10
3.25	10swg	now 3mm

ALUMINIUM WEIGHT CALCULATION :

Weight (Kgs) = Area (m2) x 2.71 x Thickness (mm).

Useful conversions :

25.4mm = 1”

1000mm = 1 metre

1 metre = 3.281 ft

1 m2 = 10.764 ft2

1000 kgs = 1 tonne

STAINLESS STEEL ROLLED PRODUCTS

Specification	Finish	Basic properties and surface finishes	Computer Short code
T304 →		Most common commercial grade with good corrosion resistance; suitable for bending and welding.	
	2B	Smooth “matt” finish. (cold rolled)	SSB 304
	BA	Smooth/Bright / Reflective finish Max. thickness is 2.0mm.	SSA 304
	240 grit polish DP1/VC1	Polished to give a brushed or satin effect and PVC protected (usually on one side only, but can be on both sides)	SSP 304
	Circle Polish	Decorative finish of “overlapping circles” on one side with PVC protection. Stocked in 0.9mm.	SSP20 304
	Mirror Polish	Polished to a highly reflective finish (PVC protected) BA is best “base” to polish Alternatively 2B	SSP20 304
T316 →		Excellent corrosion resistance. Suitable for marine applications and highly corrosive environments. Weldable. Smooth“matt” finish. (cold rolled)	
	2B		SSB 316
	240 grit polish DP1/VC1		SSP 316
		Polished to give a	

	BA	brushed or satin effect and PVC protected (usually on one side only, but can be on both sides) Not Produced……but can be mirror polished (or circle polished.).	

Specification	Finish	Basic properties and surface finishes	Computer Short code
T430 →		Cheapest form of stainless steel with a high iron (ferritic) content. Can rust and is magnetic. Usually stocked in BA or 240 polish	
	BA	Finish.	SSA 430
	240 grit polish	Smooth/Bright / Reflective finish	SSP 430

	DP1/VC1	Polished to give a brushed or satin effect and PVC protected (usually on one side only, but can be on both sides)	
T321	2B		N/A
T310 →	2B	Suitable for high temperature applications	N/A

Cold & Hot Rolled Finishes :

All sheet up to 3mm thick is generally cold rolled to give a smooth matt finish (2B) that is also suitable for further polishing (i.e. 240 grit), or, up to 2mm, a bright reflective finish (BA).

3, 4, 5, and 6mm thick can produced as a cold rolled finish (SPC) or
hot rolled (SPH) Hot rolled material has a “rougher” finish and is less suited to further polishing.

Material >6mm thick can only be produced as a hot rolled finish.

Carbon Content :
Grades 304 and 316 can be produced with a low carbon content –T304L and T316L.
This improves corrosion resistance .
Patterned Sheet :
Stainless steel treadplate (short code SG) is available. Other embossed patterns are also produced.

WEIGHT CALCULATION AND SWG CONVERSIONS for STAINLESS SHEET

Thickness (mm)	SWG	Computer short code :

0.5	25swg	SS25
0.56	24swg	SS24
0.6	23swg	SS23
0.7	22swg	SS22
0.8	21swg	SS21
0.9	20swg	SS20
1.0	19swg	SS19
1.2	18swg	SS18
1.5		SS17
1.63	16swg	Now 1.5mm
2.0	14swg	SS14
2.5		SS12
2.64	12swg	Now 2.5mm
2.84	11swg	SS11
3		SS10
3.25	10swg	now 3mm

STAINLESS STEEL WEIGHT CALCULATION :

Weight (Kgs) = Area (m2) x 7.95 x Thickness (mm).

Useful conversions :

25.4mm = 1″

1000mm = 1 metre

1 metre = 3.281 ft

1 m2 = 10.764 ft2

1000 kgs = 1 tonne

STAINLESS STEEL BAR AND SECTION

The most common bar and section products are :

Profile shape	Grades available	Basic Properties and Finishes	Computer Short code
Round bar	T303 T316 T304	Free machining bar. High corrosion resistance. General purpose grade. Weldable. Round bar has a number of finishes depending upon the diameter. e.g. bright ground, smooth turned.	SR 303 SR 316 SR 304
Flat bar	T304 & T316		SF 304 SF 316
Square bar	T304 & T316		SF 304 SF 316
Hexagon bar	T304 & T316		SX 304 SX 316
Angle	T304 & T316		SA 304 SA 316
Channel	T304 & T316	Channel profiles have to be pressed from sheet/plate.	N/A

STAINLESS STEEL TUBES & PIPE

Profile shape	Grades Available	Finish	Computer Short code
Round Ornamental Tube	T304 & T316	Descaled / Brushed Polished : Dull polished Bright Polished Mirror Polished	FTD FTO
Square Tube	T304 & T316	Descaled Dull Polished (DPOD)	FQC FQQ
Rectangular Tube	T304 & T316	Descaled Dull Polished	FQD FQR
Welded Tube	T304 & T316		FTW
Seamless Tube	T304 & T316		FTS
Welded Pipe	T304 & T316		FNW
Seamless Pipe	T304 & T316		FNS
Fittings			F

YELLOW METALS – Brass, Bronze & Copper

Profile shape	Grades Available	Basic Properties and Finishes	Computer Short Code
Brass Rod			BR
Brass Hexagon			BX
Brass Angle			BA
Brass Square Bar			BQ
Brass Tube			BT
Brass Flat Bar			BF
Brass Sheet		Mill finish	BS
Brass Sheet		Bright Polished	BP
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Copper Round Bar			CR
Copper Flat Bar			CF
Copper Sheet			CS
Copper Tube			CT

Previous Designation	New Designation	Previous Designation	New Designation
Brass		**Copper**	
CZ121	CW614N	C101	CW004A
CZ124	CW603N	C102	CW005A
CZ122	CW617N	C103	CW008A
CZ131	CW606N	C106	CW024A
CZ108	CW508L	C111	CW114C
CZ106	CW505L		
CZ112	CW712N & CW712R		
CZ114	CW721R & CW722R		
CZ132	CW602N		

SIGN PRODUCTS

	Decription	Computer short code
Alochromed and painted sheet	Sign sheet has a thickness of 2.85mm (11swg) & comes in a variety of painted finishes. The most common is 8′ x 4′ x 11swg (2438 x 1219 x 2.85mm) with a grey paint finish on one side. Other finishes are : grey both sides, grey / white, grey / yellow & black.	AB
Fabricated Sign Blanks	Bespoke sign blanks can be made to order and are fabricated by Tipton DE. Signs an have square or radius corners with or without rails attached.	
Pre Anodised Sheet	A range for pre-anodised sheet is stocked, One good face with PVC protective film.	ASA
Circles, Triangles and Octagons	A range of standard road sign blanks in mill finish or grey one side.	AYN
Aluminium Rails	Rails are riveted to sign blanks on the reverse face and act as part of the fixing mechanism. Kept in 5m lengths in mill finish or painted grey and used in conjunction with one of the fixing accessories to attach the sign to a post.	AON
Posts :	Posts are stocked in a range of sizes and types : PVC (grey) coated Also on black	MSP

Caps & Base Plates	Galvanised Anodised Aluminium – round or square	MTN MSG ATA or AEA CAP & BASE

Fixings – buckles - banding - stainless steel clips - Brackets - Double T	Used to attach a sign blank to a post	BUCK BAND CLIP BRAC AON
Composite Sheet	A “sandwich” consisting of two thin aluminium skins (0.3mm) with plastic core that results in a strong	PON

	but light panel. Blackburns Composite Panels (BCP) are kept in a range of colours (both sides – one side gloss / one side matt)	
Composite Tray	Composite sheet fabricated into a return edge sign. Rails can also be attached. Fabricated by Tipton DE.	
Hoarding Panel	Composite panel, but with thinner aluminium skins. Painted one side only.	PON
GRP (Filon)	Glass Reinforced Plastic. Used instead of aluminium in corrosive environments (ie marine). Also, temporary road signs.	PGN
Plastisol Zintec	Plastic coated steel (“leather” effect finish on rear) Zinc coated steel (white one side)	MS MS

STAINLESS STEELS HANDRAIL SYSTEM

	Decription	Computer short code
Round Handrail Tube	Satin polished on outside.	FT042/48/60 304 or 316

		FT042/48/60 316 or 316
Slotted Handrail Tube	Satin polished.	FHR 304 or 316
Fittings	Extensive range of handrail fittings supplied by Crosinox in 304 and 316 with a satin polish.	FD

Typical Standards

Product	Standards
Stainless Steel Pipe (Seamless and Welded)	ASTM A312:DIMS ANSI B36.19
Stainless Steel Seamless Round Tube	ASTM A269/213
Stainless Steel Hygenic Tube Annealed	ASTM A270
Stainless Steel Hygenic Tube Un-Annealed	DIN 11850
Stainless Steel Handrail Tube	ASTM A554

Stainless Steel Decorative Tube (Round)	ASTM A554
Stainless Steel Structural Tube (Round)	ASTM A554
Stainless Steel Structural Tube (Square and Rectangular)	ASTM A554
Stainless Steel Decorative Tube (Square and Rectangular)	ASTM A554
Stainless Steel Metric Welded Tube	BS EN 10217-7
Stainless Steel Sheet and Plate (Except grade 4003)	EN10088-2/ASTM A240
Stainless Steel Sheet and Plate (Grade 4003 only)	DIN 1543/EN10088-2
Stainless Steel Bar (all types except rolled edge flat bar)	EN10088-3
Stainless Steel Rolled Edge Flat Bar	No Standard
Aluminium Sheet, Shate and Plate (Inc Stucco)	BS EN 485-1
Aluminium 5 Bar Treadplate and Triplegrip	BS EN 1386
Aluminium Rod, Bar, Tube and Profiles (Extruded)	BS EN 755
Aluminium Rod, Bar, Tube and Profiles (Drawn)	BS EN 754
Brass Rod, Hexagon, Square (Except CZ112)	BS EN 12164
Brass Rod, Hexagon, Square (CZ112 only)	BS EN 12163
Brass Angle, Flat	BS EN 12167
Brass and Copper Sheet and Plate	BS EN 1652
Brass and Copper Tube	BS EN 12449