



COPALCOR TRADING

ALUMINIUM PRODUCTS

www.copalcor.co.za

Copalcor Trading Group

The Copalcor trading division prides itself on excellent service and quality products and we also cut to size!

Copalcor is South Africa's largest manufacturer of copper, brass and alloy-based semi-finished products and turnkey busbar solutions.

Established in the Johannesburg area in 1948, the company has undergone various name changes from McKechnie Brothers, Brass Extruders (BESA) and Copalcor Rolled Metals (CRM) to the current Copalcor Group.

Copalcor offers solutions incorporating a wide range of extruded, rolled and forged non-ferrous metal products for local and international markets.

Through ongoing development and expansion the company maintains its position as a leader in the field of service to South African strategic industries and continues to grow as an exporter worldwide.

Head Office Location

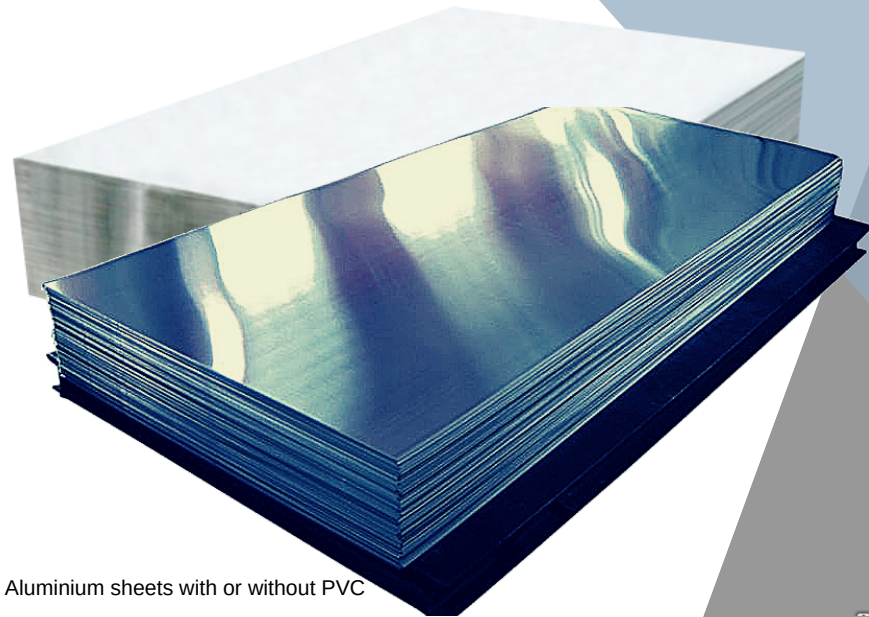
The Copalcor group's head office and production facilities are situated on a 54 000m² company-owned property in Wadeville, Germiston, which is located near Johannesburg in South Africa's Gauteng province.

Aluminium rolled products

We stock a wide variety of aluminium rolled products to suit the needs of various industries.

- Aluminium sheeting

Aluminium Plain Sheets	Theoretical Mass per sheet (kgs)
0.7mm x 1250mm x 2500mm	6.13kgs
0.9mm x 1250mm x 2500mm	7.88kgs
1.2mm x 1250mm x 2500mm	10.50kgs
1.6mm x 1250mm x 2500mm	14.00kgs
2.0mm x 1250mm x 2500mm	17.50kgs
3.0mm x 1250mm x 2500mm	26.25kgs
4.5mm x 1250mm x 2500mm	39.38kgs
1.2mm x 1500mm x 3000mm	15.12kgs
1.6mm x 1500mm x 3000mm	20.16kgs
2.0mm x 1500mm x 3000mm	25.20kgs
3.0mm x 1500mm x 3000mm	37.80kgs



Aluminium sheets with or without PVC

- Aluminium tread plate and tread bright

Aluminium Tread Plates (Base Thicknesses)	Theoretical Mass per plate (kgs)
1.5mm x 1250mm x 2500mm	14.00kgs
2.0mm x 1250mm x 2500mm	18.30kgs
3.0mm x 1250mm x 2500mm	27.05kgs
4.5mm x 1250mm x 2500mm	40.18kgs
1.5mm x 1500mm x 3000mm	19.70kgs
2.0mm x 1500mm x 3000mm	26.00kgs
3.0mm x 1500mm x 3000mm	38.60kgs



Aluminium Tread Bright	Theoretical Mass per sheet (kgs)
1.143mm x 1219mm x 2440mm	10.32kgs
1.473mm x 1219mm x 2440mm	13.06kgs

- Aluminium coils available on request

Coils we are able to import on request include, but are not limited to:

Mother coils
Gutter coils
Flashing
Stucco coils



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Aluminium rolled products

The aluminium rolled products that we typically stock are in grade 1050 H14, however we are able to import different grades on request.

Aluminium Grade 1050 H14

Remarkable Characteristics :

Very high corrosion resistance. Electrical and thermal conductivity. Highly reflective. Ductile.

Typical physical properties:

Density	2.8	g/cm ³
Modus of elasticity	71	Gpa
Modus of rigidity	26.5	GPa
Melting range	650-660	°C
Specific heat between 10-100°C	0.92	J/gK
Coefficient of linear expansion between 2-200°C	24×10^{-6}	/K
Thermal conductivity at 100°C	222	W/mK
Resistivity at 20°C	0.0282×10^{-6}	Ωm

Typical Uses:

Vehicle canopies. Anodising. Shop fronts.

Other Characteristics

Corrosion Resistance	Excellent
Weldability	Excellent
Formability	Excellent
Machinability	Poor
Anodising	Excellent
Brazeability	Excellent

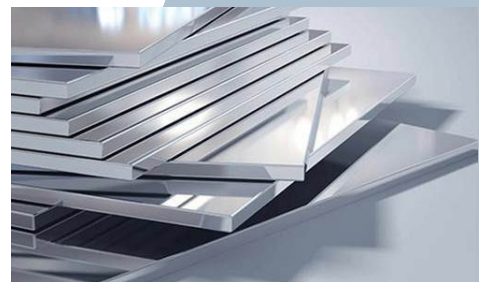


Aluminium Plate

We keep a variety of aluminium plates that are used in many applications. We always ensure that our aluminium is of superb quality.

Aluminium Plates	Theoretical Mass per plate (kgs)
3mm x 1250mm x 2500mm	26.25
6mm x 1250mm x 2500mm	52.50
8mm x 1250mm x 2500mm	70.00
10mm x 1250mm x 2500mm	87.50
12mm x 1250mm x 2500mm	105.00
16mm x 1250mm x 2500mm	140.00
20mm x 1250mm x 2500mm	175.00
25mm x 1250mm x 2500mm	218.75
30mm x 1250mm x 2500mm	262.50
40mm x 1250mm x 2500mm	350.00
50mm x 1250mm x 2500mm	437.50
60mm x 1250mm x 2500mm	525.00
70mm x 1250mm x 2500mm	612.50
75mm x 1250mm x 2500mm	656.25
80mm x 1250mm x 2500mm	700.00
90mm x 1250mm x 2500mm	787.50
100mm x 1250mm x 2500mm	875.00
120mm x 1250mm x 2500mm	1050.00
140mm x 1250mm x 2500mm	1225.00

**We cut to size
on plates and
round bars!**



Aluminium Plate

Our Aluminium plates are typically available in grades 6082 T651 and 7075 T651

Aluminium Grade 6082

Remarkable Characteristics:

Medium strength with good resistance.

Typical physical properties:		
Density	2.8	g/cm ³
Modus of elasticity	70	Gpa
Modus of rigidity	26.5	GPa
Melting range	555-650	°C
Specific heat between 10-100°C	0.88	J/gK
Coefficient of linear expansion between 2-200°C	24×10^{-6}	/K
Thermal conductivity at 100°C	180-189	W/mK
Resistivity at 20°C	0.038×10^{-6}	Ωm

Typical Uses:

General engineering of aluminium components.

Other Characteristics

Corrosion Resistance	Good
Weldability	Good
Formability	Good
Machinability	Good
Brazeability	Good

Aluminium Grade 7075

Remarkable Characteristics :

Very strong alloy.

Typical physical properties:		
Density	2.8	g/cm ³
Modus of elasticity	72	Gpa
Modus of rigidity	x	GPa
Melting range	475-630	°C
Specific heat between 10-100°C	x	J/gK
Coefficient of linear expansion between 2-200°C	23.5×10^{-6}	/K
Thermal conductivity at 100°C	130	W/mK
Resistivity at 20°C	0.052×10^{-6}	Ωm

Typical Uses:

Aircraft structures

Other Characteristics

Corrosion Resistance	Poor
Weldability	Not suitable
Formability	Fair in O temper
Machinability	Excellent
Anodising	Good
Brazeability	Not suitable

Aluminium round bars

We keep aluminium round bars in a variety of diameters that are used in many applications. We always ensure that our aluminium is of superb quality.

Round Bar Sizes	Theoretical Mass per meter (kgs)
Ø6.35	0.09
Ø8	0.14
Ø10	0.21
Ø12.7	0.34
Ø16	0.55
Ø20	0.85
Ø25	1.33
Ø27	1.55
Ø28	1.67
Ø30	1.92
Ø35.6	2.70
Ø40	3.41
Ø45	4.31
Ø50.8	5.50
Ø60	7.68
Ø65	9.01
Ø70	10.45
Ø76.2	12.40
Ø82.6	14.55
Ø90	17.27
Ø95.25	19.24
Ø101.6	22.00
Ø105	23.80
Ø110	25.80
Ø115	28.19
Ø120	30.70

Round Bar Sizes	Theoretical Mass per meter (kgs)
Ø125	33.31
Ø130	36.03
Ø140	41.80
Ø150	47.97
Ø155	51.22
Ø162	55.00
Ø165	58.04
Ø170	61.62
Ø180	69.07
Ø190	76.96
Ø203	87.86
Ø210	94.02
Ø215	98.55
Ø220	103.18
Ø230	112.78
Ø240	122.80
Ø245	127.97
Ø254	137.55
Ø260	144.12
Ø270	155.42
Ø280	167.15
Ø290	179.30
Ø304.8	198.07
Ø330	232.17
Ø360	276.30
Ø400	341.12



Aluminium Round Bars

Our Aluminium round bars are typically available in grades 6082 (Suitable for general engineering) and 7075 (Suitable for use in aircraft structures)

Aluminium Grade 6082

Remarkable Characteristics:

Medium strength with good resistance.

Typical physical properties:		
Density	2.8	g/cm ³
Modus of elasticity	70	Gpa
Modus of rigidity	26.5	GPa
Melting range	555-650	°C
Specific heat between 10-100°C	0.88	J/gK
Coefficient of linear expansion between 2-200°C	24×10^{-6}	/K
Thermal conductivity at 100°C	180-189	W/mK
Resistivity at 20°C	0.038×10^{-6}	Ωm

Typical Uses:

General engineering of aluminium components.

Other Characteristics

Corrosion Resistance	Good
Weldability	Good
Formability	Good
Machinability	Good
Brazeability	Good

Aluminium Grade 7075

Remarkable Characteristics :

Very strong alloy.

Typical physical properties:		
Density	2.8	g/cm ³
Modus of elasticity	72	Gpa
Modus of rigidity	x	GPa
Melting range	475-630	°C
Specific heat between 10-100°C	x	J/gK
Coefficient of linear expansion between 2-200°C	23.5×10^{-6}	/K
Thermal conductivity at 100°C	130	W/mK
Resistivity at 20°C	0.052×10^{-6}	Ωm

Typical Uses:

Aircraft structures

Other Characteristics

Corrosion Resistance	Poor
Weldability	Not suitable
Formability	Fair in O temper
Machinability	Excellent
Anodising	Good
Brazeability	Not suitable

Aluminium Extrusions

Our aluminium extrusions are used in many different applications including shop-fitting and cold-rooms to name just a few

Aluminium Grade 6063

Remarkable Characteristics:

High corrosion resistance. Medium strength alloy suitable for intricate extrusions. Good surface finish.

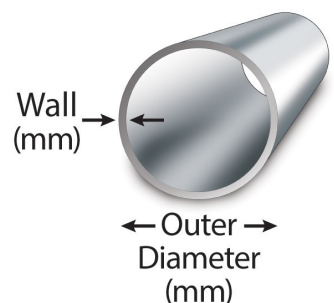
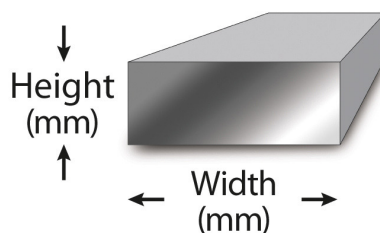
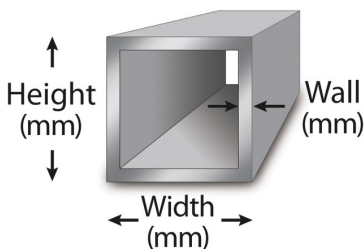
Typical physical properties:		
Density	2.71	g/cm ³
Modus of elasticity	67	Gpa
Modus of rigidity	25.5	GPa
Melting range	600-650	°C
Specific heat between 10-100°C	0.88	J/gK
Coefficient of linear expansion between 2-200°C	23×10^{-6}	/K
Thermal conductivity at 100°C	180-218	W/mK
Resistivity at 20°C	0.035×10^{-6}	Ωm

Typical Uses:

Display stands, irrigation systems, signage, canopies, structural uses, tents etc.

Types of extrusions we stock:

- Round tubes
- Square tubes
- Rectangular tubes
- Equal angles
- Channels
- Corner pieces (half rounds)
- Mae west sections
- Door frame sections
- Small c cold room sections
- H and baby h sections
- T sections
- Hang rails
- Flat bars



Copalcor Trading Branches

We have FIVE branches located strategically throughout the country just for you!

- **Copalcor Trading Wadeville**
- **Address:** Gate B, 42 Rendell Rd, Wadeville, Germiston, 1428
- **Contact number:** 011 821 0700
- **Email address:** gpsales@copalcor.co.za

- **Copalcor Trading Pretoria**
- **Address:** C3, Kuper Legh Industrial Park, E'skia Mphahlele Dr &, Moot St, Hermanstad, Pretoria, 0084
- **Contact number:** 012 379 6043
- **Email address:** ctgpta@copalcor.co.za

- **Copalcor Trading Durban**
- **Address:** 212 Bluff Rd, Jacobs, Durban, 4052
- **Contact number:** 031 482 2300
- **Email address:** ctgdbn@copalcor.co.za

- **Copalcor Trading Port Elizabeth**
- **Address:** 30 Sidwell Rd, Sidwell, Port Elizabeth, 6001
- **Contact number:** 041 451 2355
- **Email address:** copalcorpe@copalcor.co.za

- **Copalcor Trading Cape Town**
- **Address:** 13 Isotope St, Triangle Farm, Cape Town, 7530
- **Contact number:** 021 982 1155
- **Email address:** ctgcpt@copalcor.co.za

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