

Think **future.** Think aluminium.

HEAD OFFICE | HULAMIN ROLLED PRODUCTS

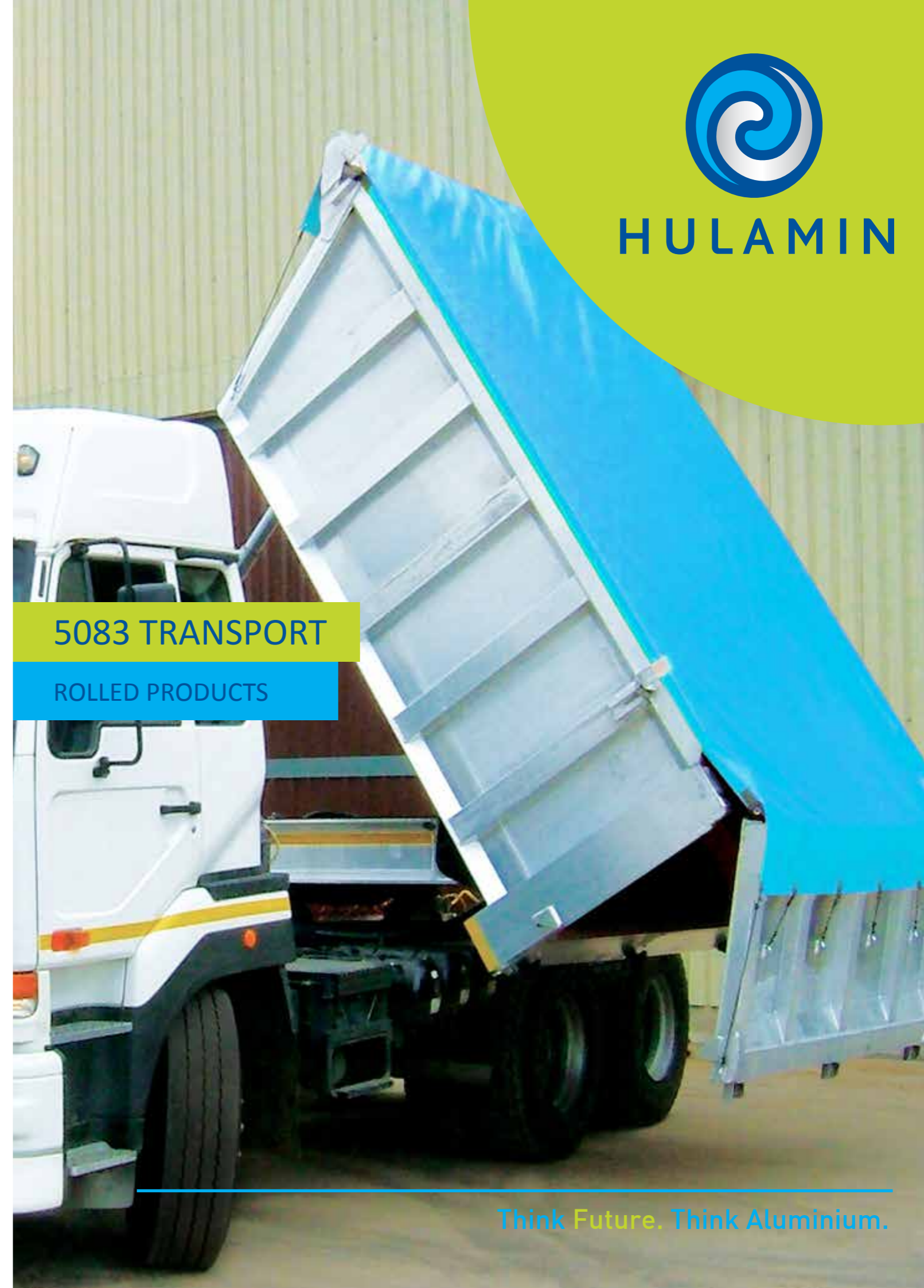
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HULAMIN

5083 TRANSPORT

ROLLED PRODUCTS

Think Future. Think Aluminium.

5083 PLATE FOR GENERAL ENGINEERING & TRANSPORT

Thanks to its unique properties, aluminium is able to provide solutions for complex design challenges. It is lightweight yet strong, durable and corrosion-resistant, formable, highly conductive, aesthetically pleasing and, above all, recyclable.

In the commercial road transport industry, aluminium delivers design flexibility for manufacturers and lower costs for operators. Hualamin's 5083 plate is proven in the transport field.

Some applications of aluminium:

Rigid bodies
Tippers
Side-tippers
Tankers
Complete superstructures

CHEMICAL COMPOSITION (IN WEIGHT %)

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Al
									Each	Total	
min	-	-	-	0.40	4.00	0.05	-	-			Bal
max	0.40	0.40	0.10	1.00	4.90	0.25	0.25	0.25	0.05	0.15	

PHYSICAL PROPERTIES

Property	Value	Unit
Density	2.65	g/cm ³
Thermal Conductivity at 25°C	117	W/m.K
Electrical Conductivity	17	S/m
Modulus of Elasticity	71	GPa
Coefficient of linear expansion	23.8 x 10 ⁻⁶	/°C
Melting Range	580 - 640	°C



Tipper - Road

MECHANICAL PROPERTIES

Alloy & Temper	Proof Stress (MPa)	Tensile Strength (MPa)	Min. % Elongation	Bend Radius
5083 H34	250 min	350 min	6%	3.5 x t for t up to 6 mm
5083 H32	215 min	305 - 380	8%	2.5 x t for t up to 6 mm
5083 H111	125 min	275 min	15%	1.5 x t for t up to 6 mm

PROCESSING ATTRIBUTES

Characteristics	
Deep drawing	Very good
Weldability (TIG/MIG)	Very good
Recommended filler alloy for TIG/MIG	5183 also 5356

SIZES AVAILABLE

Thickness	Thickness tolerance	Width	Length
4.5 to 8.0 mm	-0 + 0.2 mm	1400 - 1910 mm	2000 - 7500 mm

CERTIFICATIONS

Certification Body	Alloy	Temper	Thickness Range	Specification
TUV	5083	H111	15mm to 50 mm	AD2000 - Merkblatt W6/1

REDUCTION OF CO₂ EMISSIONS

Aluminium contributes to the reduction of CO₂ emissions from road transport in two ways:

- When carrying heavy goods, it increases the load capacity of vehicles and therefore improves transport performance, allowing more goods to be carried per trip. The result is less vehicles on the road.
- When carrying voluminous goods or numerous passengers, it reduces the overall weight, lowering fuel consumption per kilometre.

According to the European Aluminium Association fact sheet:

Life-cycle reduction of CO₂ emissions:

- 1kg of aluminium in today's average articulated truck saves 26kg of CO₂ through the lifecycle of the vehicle

