



Transport

- Dedicated semi-products supplier for demanding manufacturers of automotive parts and systems
- A diverse range of industry-proven products for the Transport industry
- Full value chain from casting to slitting – recycling in all manufacturing sites



Gränges Konin semi-finished products are used in the following industries and applications:

- heat shields
- structural elements
- fuel tanks elements
- filter elements
- hose end fittings
- battery housing
- guide rails
- acoustic shields
- gaskets
- license plates
- boats



GENERAL CAPABILITIES

Most commonly used alloys			
	5xxx	3xxx	6xxx
	1xxx	VHS/VHF Almag6	
	Thickness mm	Width mm	Length mm
STRIPS - COLD ROLLED	0.20÷0.40	12÷1500*	
	0.40÷2.00	20÷1500*	
	2.01÷4.00 (5.00)**	30÷1500*	
* The width depends to the thickness, above width 1500mm after previous agreement of technical requirements			
** Thickness 4-5mm depends to the width, alloy, temper			

	Thickness mm	Width mm	Length mm
SHEETS - COLD ROLLED	0.20÷0.40	750÷1500	500÷2500
	0.40÷2.00	800÷1500	
	2.00÷3.00	900÷1500	1000÷6000
	3.00÷4.00 (5.0)*	1000÷1500	1400÷6000
* Thickness 4-5mm depends to the width, alloy, temper			

Your experienced partner

Built on the foundation of more than 125 years of innovative engineering and materials development, we are a world leader in high-performance aluminium alloys. With a long heritage of supplying the automotive industry, we are an experienced partner delivering consistent, high quality materials to industries with high demands on safety, performance and sustainability.

→ granges.com



Low climate impact

Circular and resource-efficient

Responsibly sourced and produced

Contributing to a circular and sustainable economy Join us on the path to net-zero 2040

Gränges is a global leader in aluminium rolling and recycling in selected niches. We are committed to creating circular and sustainable aluminium solutions in partnership with our customers and suppliers – for a better future. Our

solutions help customers grow and transition to climate neutrality. They are used for efficient climate control in transportation and buildings, electrification and battery components, recyclable packaging, and more.

VHS/VHF Almag6

Aluminium-magnesium alloy with 6% Mg

Almag6 is a new generation of aluminium alloy developed by Gränges Konin, dedicated for automotive industry (especially for internal car body parts), ICT industry and for household appliances as well. This material allows to reduce the weight of components by reducing input strip/sheet thickness and also to replace standard aluminium alloys and steel used for constructions. Thanks to increased content of magnesium, Almag6 alloy is characterized by very high strength performance (higher than standard EN AW-5xxx series alloys) with better formability. Especially in O temper Almag6 have steel-like excellent deep drawability. Good corrosion resistance is obtained as a result of using dedicated technological process. An additional benefit is the positive effect on the natural environment – fully recyclable material.

VERY HIGH STRENGTH (VHS)

	Si [%]	Fe [%]	Cu [%]	Mn [%]	Mg [%]	Cr [%]
min	-	-	-	-	5,8	-
max	0.20	0.25	0.10	0.25	6.3	0.05

Very high strength alloy with solution and cold work hardening dedicated for very stiff and strong construction – possibility of weight reduction.

Alloy	R _m [MPa]	R _{p02} [MPa]	A ₅₀ [%]
EN AW-5052 H18	300	260	5
EN AW-5182 H18	380	320	4
Almag6 H18	470	400	8

Excellent susceptibility to cold reduction over 90% - new possibility to offer material thickness around 0.3mm with high mechanical properties (it is not possible for conventional high Mg 5xxx alloys without intermediate heat treatment)

VERY HIGH FORMABILITY (VHF)

New, innovative alloys can provide many options of balance between high strength and very good formability - even Almag6 in hard temper can have a high level of formability. There are many applications for new alloys especially for stamping processes conducted in room temperature.

Alloy	R _m [MPa]	R _{p02} [MPa]	A ₅₀ [%]
EN AW-5052 „O“	200	110	23
EN AW-5182 „O“	260	135	24
Almag6 „O“	310	150	30

Fine alternative for conventional high Mg 5xxx alloys – good balance between higher mechanical properties and better elongation, gives the opportunity to replace conventional 5xxx alloys by innovative Almag6 alloy.

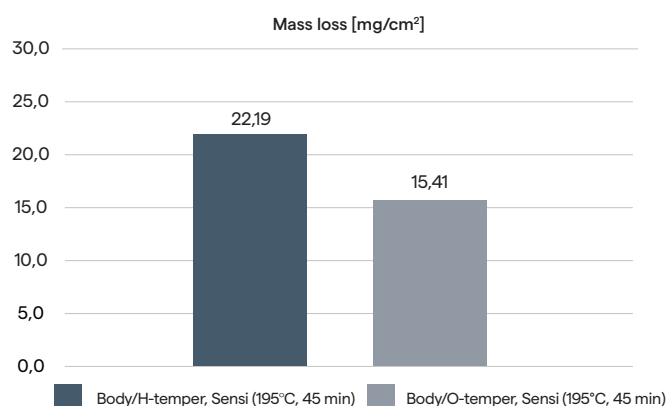
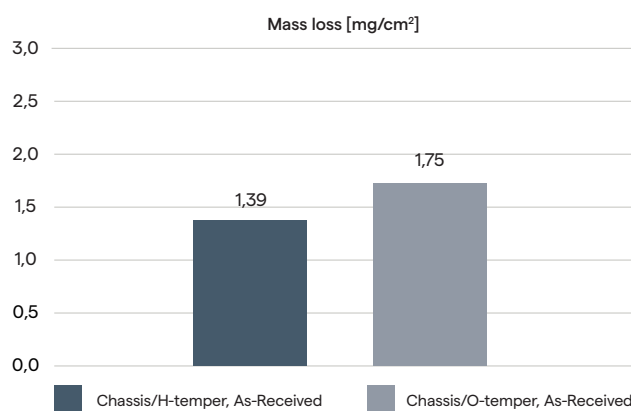
DIMENSIONS

Product	Thickness [mm]	Width [mm]	Length [mm]
Sheets	0.5 ÷ 3.0	1000 ÷ 1300	1500 ÷ 3000
Strips	0.3 ÷ 3.0	30 ÷ 1300	-

Temper, width, inside & outside diameter of strips depends on Customer's requirements and mutually agreements

ADVANCED CORROSION RESISTANCE

New aluminium-magnesium alloy has improved corrosion resistance in comparison with conventional 5xxx alloys, and in particular offers advanced intergranular corrosion resistance.



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