

# MagiGal



**MAGIGAL** is family of zinc-aluminum-magnesium alloys developed by Boliden together with the steel industry to meet the needs of our customers in continuous hot dip galvanizing.

They are tailor-made alloys, ready to use without the mixing of different components. As MagiGal alloys will remarkably improve corrosion resistance by maintaining a good protection of cut edges, compared to regular galvanized steel sheet, MagiGal users can offer the same corrosion protection with a coating thickness that is reduced by 50%. Depending on end-use applications, use of MagiGal-alloys can significantly reduce costs due to thinner Zinc-layers.

## OUR PROMISE

Boliden's experienced technical support drives the development and production process of the metal and our Technical Consultant is ready to answer your questions with regards to your individual application of the product. Through reliable deliveries, high quality products and professional customer service, including price information and technical support we want to be your supplier of choice.

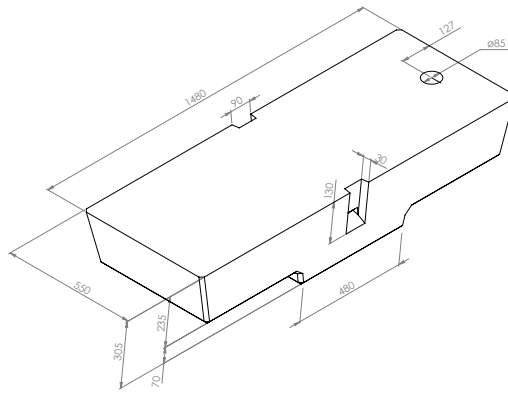
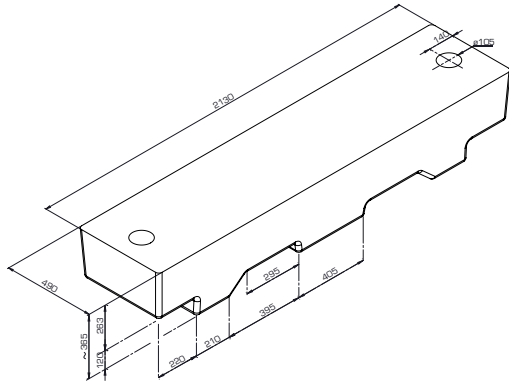
By becoming Boliden's customer, we want to help you add value to your customers and work with you for a more sustainable future.



Did you know that ...

Boliden is one of the world's ten biggest players in the zinc mining sector.

# Technical Specification



**Jumbo 2,000 kg** 1,775 ± 125 kg  
**Dimensions** 2,128 x 485 x 365 (± 6 mm) for Mg-contents < 3%

Chemical composition	Guaranteed analysis	Tolerance
Al	1% to 5%*	± 0.2%
Mg	0.5% to 4%*	± 0.2%
Fe	≤ 0.08 %	
Si	≤ 0.05 %	
Pb	≤ 0.01 %	
Cd	≤ 0.007 %	
Sn	≤ 0.007 %	
Cu	≤ 0.007 %	

Physical property	Unit	Value
Density solid	g/cm <sup>3</sup>	7.0 down to 6.4 (according alloy)
Density liquid (melting temperature)	g/cm <sup>3</sup>	6.9 down to 5.8 (according alloy)
Solidification	°C	410 down to 365 (according alloy)
Viscosity (420 °C)	N/m	0.00355 down to 0.003 (according alloy)

\*up to customer demand

## The Boliden Group

Metals are an ever-present and vital component of society. Boliden extracts minerals and produces high quality metals in a cost-efficient way. The work – from exploration to customer delivery – is characterised by care for people, the environment and society.

The Boliden Group operates six mines and five smelters in Sweden, Finland, Norway and Ireland and has a total of approximately 5,700 employees. Our core expertise is in exploration, mining, smelting and recycling.

Boliden's main metals are zinc and copper, but the production of lead, nickel, gold, silver and other products is also of considerable importance for our profitability. The annual turnover is approximately SEK 50 billion.



## Our value chain

**Exploration** Successful exploration is vital to long-term metal production. The exploration is conducted in the vicinity of existing mines and in new areas in order to find new deposits.

**Mines** Zinc-, copper-, nickel-, lead-, gold- and silver-bearing ores are mined in Boliden's mining areas. The ore is processed to metal concentrate, the majority of which is delivered to smelters within the Group.

**Smelters** Boliden's smelters refine metal concentrates and other raw materials, such as electronic scrap, to produce both pure metals and customised alloys.

**Customers** Our products are mainly sold to industrial customers in Europe. Most of the zinc is sold to steel companies, while the copper is supplied to manufacturers of for example wire rod.