

## Casting material

# ANTICORODAL<sup>®</sup> - 54

### G-ALSi5Mg

#### Properties and application

ANTICORODAL<sup>®</sup> - 54 is a hardenable, low-iron aluminium-silicon casting alloy for use in sand and coquille casting. The casting properties of ANTICORODAL<sup>®</sup> - 54 sit midway between the particularly good castability of silicon-rich alloys and the difficult to cast AlCuTi and AlMg alloys.

The iron content of the alloy is compensated for by a balanced manganese additive.

ANTICORODAL<sup>®</sup> - 54 has very good mechanical properties in the cast and hardened conditions.

ANTICORODAL<sup>®</sup> - 54 is highly weldable and very polishable and machinable, particularly after hardening.

ANTICORODAL<sup>®</sup> - 54 is therefore suitable for such things as gauge and equipment construction, for the food industry, ship building, etc.

#### Composition in the block in % by mass:

Si	Fe	Cu	Mn	Mg	Zn	Ti	Other
5.0 – 6.0	0.3	0.03	0.15-0.25	0.5 – 0.8	0.10	0.05-0.20	0.02 each

#### Guiding values for the achievable mechanical properties

Process condition	0.2% Yield strength R <sub>p0.2</sub> [N/mm <sup>2</sup> ]	Tensile strength R <sub>m</sub> [N/mm <sup>2</sup> ]	Ductile yield A 5 [%]	Brinell hardness HB 5/250
Sand / F	100 – 130 (90)	140 – 180 (130)	2 – 4 (1)	60 – 70 (55)
Sand / T4	150 – 180 (120)	200 – 270 (150)	4 – 10 (2)	75 – 90 (70)
Sand / T6	220 – 290 (160)	260 – 320 (180)	2 – 4 (1)	95 – 115 (85)
Coquille / F	120 – 160 (100)	160 – 200 (140)	2 – 5 (1)	60 – 75 (60)
Coquille / T4	160 – 190 (130)	210 – 270 (170)	5 – 10 (3)	75 – 90 (70)
Coquille / T6	140 – 290 (180)	260 – 320 (190)	2 – 7 (1)	100 – 115 (90)

Alloy ANTICORODAL<sup>®</sup>-54 is delivered exclusively in the form of pigs produced through horizontal continuous casting (HCC). In this way, we offer the following advantages:

- Less scrap through maximum metal purity and uniformity
- Clean pigs without oxide inclusions
- No hard non-metallic inclusions
- Low gas content in the pigs thanks to inline degassing during production
- Lower costs through
  - Reduced metal loss during melting
  - Good and safe stackability
  - Low space requirements thanks to compact pig bunches